

ECONOMICS
OF
TRANSPORTATION

ECONOMICS OF TRANSPORTATION

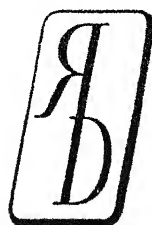
by

D. PHILIP LOCKLIN, PH.D.

Professor of Economics

University of Illinois

THIRD EDITION



1947

RICHARD D. IRWIN, INC.

CHICAGO

COPYRIGHT 1935 AND 1938 BY BUSINESS PUBLICATIONS, INC.
COPYRIGHT 1947 BY RICHARD D. IRWIN • INC.

ALL RIGHTS RESERVED • THIS BOOK OR ANY PART THEREOF MAY
NOT BE REPRODUCED WITHOUT THE PERMISSION OF THE PUBLISHER



THIRD EDITION
First Printing, February 1947

PRINTED IN THE UNITED STATES OF AMERICA

To
the memory of
my father and mother

PREFACE

THE first edition of *Economics of Transportation* appeared in 1935, and the first revision in 1938. Events which have transpired since 1938 make it desirable to revise the volume again. In addition to bringing material in the second edition up to date it seemed particularly important to expand the sections dealing with highway transportation, water transportation, and air transportation, and to deal more fully with problems arising in the regulation of these carriers.

When the second edition was published the Civil Aeronautics Act had just been passed; we had experienced less than three years of motor-carrier regulation under the Motor Carrier Act; and Part III of the Interstate Commerce Act which relates to water transportation had not been enacted. The present edition undertakes to review this legislation and to discuss some of the more important issues that have arisen in the administration of these laws. At the same time new developments in the field of railroad regulation have not been neglected. An effort has been made to deal adequately with major developments in this field also.

There has been some condensation of material in the earlier chapters of the book, and the chapter on common-carrier liability in the earlier editions has been omitted. The growing importance of the relations between different modes of transport has led to an expansion of the chapter dealing with transport coordination and the problems of intercarrier relations. In this chapter will be found a treatment of such controversial issues as our promotional policy with respect to the different modes of transport, the subsidy question, railroad control of competing modes of transport, interagency competition and rate policy, and some other problems involving relations between different modes of transport.

The emphasis on the economic aspects of transportation which characterized the earlier editions has been continued in this edition. Purely descriptive material has been kept to a minimum to permit discussion of those aspects of transportation which involve questions of public policy. On these questions the author has not hesitated to state his own conclusions, but has not felt obliged to render judgment on all issues raised.

The fact that water transportation is treated in two chapters, highway transportation in two, air transportation in two, and pipe lines in one, while many chapters are devoted to railroad transportation and its

regulation, should not lead to the inference that railroad transportation is overemphasized, and that the other modes of transport are slighted. When the student has acquired an understanding of railway rate theory, of railway rate structures and rate-making practices, has studied the evolution of the regulatory system developed for railroads, and has studied some of the major problems of railroad regulation and the policies worked out by regulatory agencies, the other modes of transport can be treated more briefly, and with a minimum amount of repetition. Attention can be called briefly to similarities between these forms of transportation and the railroads; significant differences can be stressed; and emphasis can be put on the problems peculiar to the mode of transport under consideration. In like manner, differences in regulatory statutes can be noted; differences in regulatory policy can be brought out; and particular attention can be devoted to the regulatory problems peculiar to each mode of transport. Such is the plan that has been followed in the present volume.

In the first edition the author acknowledged indebtedness to Professors E. L. Bogart, Hiram T. Scovill, E. R. Dillavou, A. G. Anderson, and C. L. Stewart of the University of Illinois, and to Mr. Luther M. Walter of the law firm of Walter, Burchmore and Belnap, of Chicago, and to Dr. Virgil D. Cover and Dr. L. E. Fitzgerald then of the University of Illinois for reading and criticizing one or more chapters of the book. For aid in the preparation of the second edition appreciation was expressed of the aid of Dr. B. N. Behling, then of the Department of Economics of the University of Illinois, for various suggestions. In the preparation of the present edition acknowledgement should be made of numerous valuable suggestions offered by Professor Eliot Jones of Stanford University. Acknowledgement should also be made of help extended by Professor Floyd Haworth of the Department of Economics of the University of Illinois who has been ever ready to aid in statistical compilations and calculations. The author wishes to acknowledge his indebtedness to Professor M. H. Hunter, Head of the Department of Economics, University of Illinois, for co-operation and encouragement in various ways. The author is most indebted to his wife, Anne Littlefield Locklin, for careful reading and criticism of the manuscript in the various stages of preparation.

D. PHILIP LOCKLIN

TABLE OF CONTENTS

CHAPTER	PAGE
I. ECONOMIC SIGNIFICANCE OF IMPROVED TRANSPORTATION	1
II. FREIGHT RATES AND PRICES	21
III. FREIGHT RATES AND THE LOCATION OF INDUSTRIES AND MARKET CENTERS	43
IV. BEFORE RAILROADS	68
V. THE ERA OF RAILROAD BUILDING	87
VI. THE RAILROAD SYSTEM OF THE UNITED STATES	121
VII. THE THEORY OF RAILROAD RATES	133
VIII. RAILROAD RATE STRUCTURES	164
IX. BEGINNING OF RAILROAD REGULATION	202
X. FEDERAL LEGISLATION, 1887-1920	214
XI. THE TRANSPORTATION ACT OF 1920	236
XII. RAILROAD LEGISLATION SINCE 1920	253
XIII. THE AGENCIES OF CONTROL	276
XIV. RAILROAD COMPETITION AND ITS CONTROL	305
XV. THE RAILROAD RATE LEVEL	336
XVI. FAIR VALUE AND RATE OF RETURN	370
XVII. THE WEAK-AND-STRONG-ROAD PROBLEM	414
XVIII. REASONABLENESS OF RATES ON PARTICULAR COMMODITIES	434
XIX. REASONABLENESS OF RATES BETWEEN PARTICULAR POINTS	466
XX. PERSONAL DISCRIMINATION	484
XXI. DISCRIMINATION BETWEEN PLACES AND COMMODITIES	500
XXII. LONG-AND-SHORT-HAUL DISCRIMINATION	534
XXIII. RAILROAD ACCOUNTS AND ACCOUNTING REGULATION	558
XXIV. RAILROAD FINANCE AND FINANCIAL REGULATION	575
XXV. RAILROAD SERVICE AND SERVICE REGULATION	605

CHAPTER	PAGE
XXVI. GOVERNMENT OWNERSHIP AND OPERATION OF RAILROADS	632
XXVII. PIPE LINES	649
XXVIII. HIGHWAY TRANSPORTATION	666
XXIX. REGULATION OF HIGHWAY TRANSPORTATION	696
XXX. WATER TRANSPORTATION	735
XXXI. REGULATION OF WATER TRANSPORTATION	764
XXXII. AIR TRANSPORTATION	785
XXXIII. REGULATION OF AIR TRANSPORTATION	813
XXXIV. TRANSPORT COORDINATION AND INTERCARRIER RELATIONS	834
INDEX	877

CHAPTER I

ECONOMIC SIGNIFICANCE OF IMPROVED TRANSPORTATION

BEFORE the development of railroads the overland transportation of goods was exceedingly costly. The carriage of goods by water, however, was performed at less cost than by land. For this reason most of the commerce of the world was carried by water, and the important commercial cities were maritime cities. The invention of the steam engine in the eighteenth century paved the way for improved transportation facilities. The application of the steam engine to navigation in 1807, and to land transportation, through the invention of the locomotive in 1829, opened an era of cheap transportation. The steamboat greatly reduced the cost of transportation by water, but the steam locomotive was nothing less than revolutionary in its effect on transportation by land. The railroad has made cheap transportation possible for vast areas of the earth's surface. This cheap transportation is one of the basic facts on which the economic life of the nineteenth and twentieth centuries has been built.

Technological improvements which have been made continuously since the first introduction of railroads have progressively reduced the cost of rail transportation, and have improved the services which the railroads provide. There is no reason to believe that the end of this process has been reached, although technological improvement in the railroad industry is naturally slower than when the industry was in the developmental stage. Improvement in transportation facilities, however, has not been confined to railroads. New forms of transport have arisen; and older ones have been improved. The automobile and the airplane have appeared upon the scene since the completion of the railroad network. Waterways have been improved, and modern boats and barges have been constructed to operate over them.

Improvements in transportation generally mean reductions in transportation costs to shippers, or greater speed in transport, or some improvement in the nature or quality of the service. From the historical standpoint reductions in transport costs have probably been the most important. Of course, improvements in speed have also been important; and air transportation, which has brought great advances in this respect, will undoubtedly have important and far-reaching economic conse-

quences. In this chapter, however, we are concerned primarily with the economic results which flow from reductions in transportation costs to shippers.

TRANSPORTATION AND AVAILABILITY OF GOODS

The most obvious effect of improved transportation is to make available to a community the goods which must of necessity be produced elsewhere. A community without cheap transportation must be largely self-sufficing. Climatic conditions and available natural resources limit the goods which may be produced, and only those products from other lands can be brought in which will stand high transportation costs. Cheap transportation permits other goods to be brought in, so that the products of other lands and climes may become as commonplace as the articles produced at home. A moment's reflection will reveal dozens of commodities daily consumed in any modern community which are not and could not be produced locally.

PRICE STABILIZATION AND EQUALIZATION

Closely related to the above is another result of cheap transportation. The possibility of an easy movement of goods from one community to another tends to equalize prices. Illustrations of this can be easily found. Fresh fruits and vegetables can be brought into a community when the season is not right for the local product, or when the local supply is short. Crop failures, although bringing hardship to the producers, are less serious to a community as a whole if it can obtain supplies from outside. Similarly a local oversupply can be disposed of by shipping to other markets, thus preventing a serious break in local prices. Cheap transportation makes possible the establishment of central markets for many commodities, in place of local markets where local conditions of supply and demand often create wide price fluctuations. A central market, deriving its supply from many sources and disposing of the product to many consumers, is less subject to extreme price fluctuations. For some commodities, those which stand long-distance transportation especially well, world markets and world prices are established. In such cases the price in any producing area is closely related to the world price, varying from that price chiefly by the transportation rates and other costs incident to shipment to the market.

RELATION OF TRANSPORTATION TO LAND VALUES

Another effect of cheap transportation is to extend greatly the area of profitable production for a given market. This is illustrated by the

facts given below regarding the production of food supplies for larger cities. Many lands would be unprofitable for agricultural purposes if cheap transportation did not enable the product to be shipped to distant markets. Cheap transportation, therefore, tends to increase land rents and values in remoter regions. The economic history of the United States affords illustrations of this relationship. The high cost of transportation by land prior to the construction of railroads made it impossible to produce agricultural products or to develop natural resources

TABLE I
EARLY ESTIMATES OF VALUE OF WHEAT AND CORN PER TON AT
DIFFERENT DISTANCES FROM MARKET ON A RAILROAD AND
ON A COMMON ROAD

Miles	Railroad		Ordinary Road	
	Wheat	Corn	Wheat	Corn
0.	\$49.50	\$24.75	\$49.50	\$24.75
10	49.25	24.60	48.00	23.25
20	49.20	24.45	45.50	21.75
30	49.05	24.30	45.00	20.25
40	49.00	24.15	43.50	18.75
50	48.75	24.00	42.00	17.25
100	48.00	23.25	34.50	9.75
150	47.25	22.50	27.00	2.25
160	47.10	22.35	25.50	0.75
170	46.95	22.20	24.00	..
200	46.50	21.75	19.50	..
250	45.75	21.00	12.00	..
300	45.00	20.25	4.50	..
320	44.70	19.95	1.50	..
330	44.55	19.80	..	..

at any great distances from markets. Until cheap transportation made such markets accessible the rich lands west of the Allegheny Mountains had little value. During the era of railroad building the advantages of railroads were frequently demonstrated by pointing out that with ordinary roads as a means of transportation corn could be transported only about 125 miles to market, and wheat only 250 miles.¹ For longer distances the cost of transportation became so great that grain could not be profitably produced in excess of local needs. Figures like those in Table I were sometimes used to illustrate how the area of profitable cultivation could be increased by rail transportation, and how the value of grain would be enhanced along the line of the railroad.²

¹ Poor, Henry V., *Influence of the Railroads of the United States in the Creation of Its Commerce and Wealth* (New York, Journeymen Printers' Cooperative Association, 1869), pp. 11-12.

² This table appeared in the *American Railroad Journal*, vol. XXV, p. 705 (1852), and in *Merchants' Magazine and Commercial Review*, vol. XXIX, p. 388 (1853).

Many of these calculations failed to allow for the fall in prices which was brought about by the great increase in the areas of cultivation. In spite of such price declines the construction of railroads made millions of acres of land valuable that had been worthless before.

If the building of railroads increased the profitableness of agriculture in areas remote from markets, it made agriculture less profitable on the lands situated nearer the markets. The advantage of nearness to market became less important than formerly. And when the distant lands were fertile and easily tilled, and the nearer lands were poorer or difficult to work, the nearer regions suffered greatly. The opening of the Erie Canal in 1825 reduced the cost of transportation from Buffalo to Albany from \$100 to \$10 and ultimately to \$3 per ton.³ This had the effect of increasing land values in the West and depreciating them in the East. As railroads were constructed land values changed still more. Agricultural production increased immensely in the West; in New England and the seaboard regions agriculture declined and farms were abandoned. The effect of cheap railroad transportation in the United States was felt even in England. Prices of grain fell from 40 to 50 percent. This worked a great hardship on the farmers and landowners of England, and the collapse of British agriculture seemed imminent.⁴

TRANSPORTATION AND PRICES

The most important effect of improved transportation is the reduction in the cost of goods which it brings about. Cheap transportation reduces the price of goods by lowering the cost of producing them. This result is accomplished in several ways.

The most obvious way in which cheap transportation reduces prices is through the reduction in the cost of getting goods from the point of production to the consumer. The freight rates on goods are in reality costs of production. The process of production is not complete until goods are placed in the hands of consumers. This truth is frequently explained by pointing out that production is the creation of utilities, not simply the creation of physical goods, and that transportation produces place utilities. If goods are brought into a community for sale the price must be high enough to cover the cost incurred in shipping them.

³ Poor, *op. cit.*, p. 8.

⁴ Jeans, J. Stephens, "American Railroads and British Farmers," 28 *Nineteenth Century* 392, 401 (1890).

High freight rates mean higher prices for the goods which are brought into a community. Low freight rates mean lower prices for these goods. Before railroads or other improved means of transportation had developed in the United States, the settlers who had pushed into the interior had to pay high prices for many essential commodities. Salt could be purchased on the coast for a cent a pound but it sometimes cost six cents a pound three hundred miles inland because of the cost of transportation.⁵ Iron, likewise, was high in price in the interior; at times it was worth as much as 25 cents a pound in Pittsburgh.⁶

A second way in which cheap transportation reduces the price of goods, is through reducing the cost of assembling the raw materials needed in the manufacturing process. Manufactured articles often contain raw materials which must be assembled from many sources of supply. These transportation expenses increase the cost of producing the manufactured goods. Thus, if the cost of assembling the lumber, the iron and steel, the rubber, and the many other raw materials used in the manufacture of automobiles were to be increased, it would increase the cost of producing automobiles and would tend to increase the prices charged for them. As will be seen in a later chapter,⁷ industries sometimes move closer to sources of raw materials in order to avoid increased freight rates, but if a number of raw materials from different sources of supply are used, the high transportation rates on raw materials cannot be wholly avoided. The industry may move toward the source of supply of the raw material on which the freight bill is the largest, but the other raw materials will have to be brought perhaps even longer distances than formerly. There is no escape from the fact that the cost of assembling raw materials is a cost of production. Anything which tends to reduce this cost will tend to reduce the price of the manufactured goods.

TERRITORIAL DIVISION OF LABOR

A third manner in which transportation reduces the cost of production is through the opportunity it makes for geographical division of labor, or territorial specialization. It is in this connection that transportation has wrought the greatest changes in our system of production. By geographical division of labor is meant a system of production in

⁵ Hadley, Arthur T., *Railroad Transportation* (New York, Putnam, 1885), p. 25.

⁶ Dunbar, Seymour, *A History of Travel in America* (Indianapolis, Bobbs-Merrill Co., 1915), vol. I, p. 195.

⁷ Chapter III.

which each geographical area tends to specialize in the production of one or a limited number of commodities.

Geographical division of labor and the resulting exchange of goods between regions is of two sorts. The simpler case arises when one region, A, can produce a commodity more cheaply than another region, B, and B can produce something else more cheaply than A. Under these conditions it is certainly to the advantage of all parties that each community produce that for which it is best fitted and exchange with the other. If the costs of transportation between A and B are so great as to offset the advantage which each community has in the production of its specialty, no exchange will take place. As a result A will find it necessary to devote some of its land, labor, and capital to the production of the commodity which B can produce more cheaply. Community B will have to produce some of the commodity which A can produce more cheaply. Land, labor, and capital are less effectively employed than when each community specializes. High transportation costs, therefore, operate as a barrier to trade and profitable specialization. In this respect high freight rates act as a protective tariff and compel A and B to produce some goods for which they are not adapted.

But a more complicated situation than the foregoing usually develops if cheap transportation is available. A community will specialize in the production of the goods for which it has the *greatest* advantage. When specialization of this sort takes place a community sometimes purchases things from outside which it can produce with less cost at home. It does this in order to be free to devote its energies to the production of the things in which its advantages are the greatest. This principle is called the principle of "comparative advantage" or "comparative costs." It has been developed most extensively in connection with studies of international trade.⁸ The principle, however, is of much wider application. It applies equally well to trade between sections of the same country. It applies to division of labor between individuals as well as between localities. Thus a lawyer may be able to do his stenographic work better than the stenographer whom he employs. He will devote himself, however, to the tasks which he can do and the

⁸ For a statement of the principle see Taussig, F. W., *Principles of Economics* (New York, Macmillan, 1921), 3d ed. rev., vol. I, ch. 34, also by the same author, *Some Aspects of the Tariff Question* (Cambridge, Harvard University Press, 1915), ch. III, and *International Trade* (New York, Macmillan, 1927), ch. IV. The principle is also fully developed and given a wider application in Black, John D., *Introduction to Production Economics* (New York, Henry Holt & Co., 1926), ch. V.

stenographer cannot do, unless his business is not extensive enough to permit it. It would be poor business for him to allow stenographic work, which a stenographer can do, to interfere with tasks which the lawyer only can do and which will increase his income. Similarly the manager of a store may be a better salesman than those whom he employs. But he would be foolish to do the work of a salesman if it interfered with the proper management of the store or attention to tasks which he alone can perform satisfactorily.

The principle of comparative advantage does not mean that a community produces all of the things in which it has an advantage over other communities. It simply means that of all the commodities which it can produce it will produce those which it can produce most cheaply. This may mean producing a commodity that it can produce more cheaply than other communities. It may mean producing a commodity which could be produced more cheaply somewhere else. But in any case the community produces that which it can produce at the greatest advantage. To quote Professor Warren, who has recognized this principle in his studies of types of farming: "Sometimes a product that does not pay well must continue to be raised, because there is nothing better."⁹ A community in this situation, unfortunate though it may be, is making the most of its limited opportunities. It is not wasting its resources in the production of things which give an even smaller return.

The principle of comparative advantage explains why certain types of farming are carried on in certain localities. This is particularly true of regions devoted to one-crop farming. There are, for instance, many crops besides cotton which could be raised in the South very cheaply. If the South fails to produce them it is probably because cotton is more profitable. To preach diversification under such circumstances, desirable as diversification might be for some reasons, is to ignore a fundamental law of economics. Farmers will continue to produce that which yields them the greatest return. Corn-belt farming illustrates the same phenomenon. It is said that sugar beets could be grown more cheaply in the corn belt than in the sugar-beet areas of Michigan and Colorado. They are not grown in the corn belt to any appreciable extent because corn is more profitable.¹⁰ As Professor Warren states the principle as applied

⁹ Warren, G. F., *Farm Management* (New York, Macmillan, 1913), p. 93.

¹⁰ Tapp, J. W., "The Principle of Comparative Advantage Applied to Farm Management Studies of Regional Competition Between Farms," 8 *Journal of Farm Economics* 417, 419 (1926).

to types of farming: "It is not sufficient that a crop pay; it must pay better than the other crops with which it competes." And again: "No matter how profitable a product is, it must give way to a competing product that pays better."¹¹

The gain to society from territorial division of labor is clearly apparent. There is a greater output at less expenditure of capital and labor if each community can specialize in the lines of activity for which it is best fitted. The high standard of living in the United States is sometimes attributed to the fact that the United States comprises a large area having varied natural resources and climate, yet within which trade is unrestricted by tariff barriers or by high transportation costs.

Territorial specialization and the gains that go with it are dependent upon cheap transportation. A community cannot specialize unless it has a market for its products, and unless it can obtain other commodities which it needs. The gain to society from the production of goods where they can be produced most advantageously can easily be offset by high transportation charges, making specialization impossible. Adam Smith's remark that the division of labor is limited by the extent of the market,¹² although true of any form of division of labor, is clearly true of geographical division of labor. Without cheap transportation there can be little territorial division of labor. This relationship is clearly illustrated by early railroad history in the United States. The early specialization of the West in agricultural products, of the South in cotton, and of New England in manufactured goods, required cheap transportation. Many of the early railroads were projected to further this specialization.

TRANSPORTATION AND LARGE-SCALE PRODUCTION

A fourth manner in which transportation reduces the cost of goods is through the encouragement it lends to large-scale production. Large-scale production may exist which is not dependent upon cheap transportation. But in many instances large-scale production means that either raw materials or finished products must be transported long distances. This is not possible if freight rates are too high. The milling industry would not be characterized by large-scale operations if high freight rates made impossible the transportation of wheat for long distances. Similarly, high freight rates on flour would make large-scale

¹¹ Warren, *op. cit.*, pp. 92 and 93.

¹² *Wealth of Nations* (1776), Bk. I, ch. III.

milling impossible except in regions of dense population. The meat-packing industry, likewise, could not be carried on on such a large scale as it is in Chicago if meat packers had to rely on a local supply of livestock or on a local market for their products.

TRANSPORTATION AND COMPETITION

There is still another way in which cheap transportation tends to reduce prices. As transportation costs are reduced a larger and larger number of producers are able to sell in a given market. High freight rates, on the other hand, restrict the area within which goods can be distributed. It follows that low freight rates will tend to increase the number of competitors supplying a market. This gives purchasers the benefit of increased competition, and tends to keep prices down.

TRANSPORTATION AND URBANIZATION

The growth of large cities is dependent upon cheap transportation. The urbanization of the United States has been one of the characteristic features of the last hundred years. Before the days of railroads large cities were located where water transportation was available. Lack of transportation facilities hindered the development of large inland cities because, in the absence of cheap transportation, the necessity of deriving a food supply from the immediate locality acted as a limiting factor. The extent to which the larger cities of the United States derive such perishable food products as fresh fruits and vegetables from wide areas is well illustrated from data compiled by the Bureau of Railway Economics. In 1929, for instance, New York City unloaded 130,702 carloads of 18 kinds of fresh fruits and vegetables. Of these, 40 percent originated in the Pacific Coast States, 29 percent in the New England and Middle Atlantic States, and 23 percent in the South Atlantic and Gulf States.¹³ The haul from the Pacific Coast States is more than 3,000 miles. An experiment station study made in 1928 showed that 42 of the 48 States shipped cars of fresh fruits and vegetables to Providence, Rhode Island.¹⁴ Even fresh milk is daily supplied to New York, Boston, and other large cities from farms several hundred miles away. Of course it would be possible for these cities to derive their food supplies

¹³ Bureau of Railway Economics, Bulletin No. 39, *Unloads of Fresh Fruits and Vegetables at Sixty-six Important Consuming Markets in the United States, Calendar Year 1929* (Washington, 1930), p. 9.

¹⁴ Corbett, Roger B., *Sources of Carload Receipts of Food in Providence, Rhode Island, 1921-1925*, Bulletin 215, Agricultural Experiment Station of the Rhode Island State College, (Kingston, R. I., 1928), p. 60.

from nearer sources, but these facts indicate how cheap transportation has freed these cities from the necessity of relying on a local source of supply.

Cheap transportation not only makes large cities possible, but it has been a positive stimulus to the concentration of population in cities. We have noted that improved transportation has stimulated both large-scale production and geographical division of labor. Large-scale production leads to the concentration of manufacturing and the creation of large industrial cities. And both large-scale production and territorial division of labor increase the amount of trade that takes place. The activities that accompany trade, such as transportation, handling, storing, processing, packaging, advertising, merchandising, financing, professional risk-bearing, and the like, tend to be performed in urban centers, and lead to the establishment of trade and transportation centers. Thus urbanization is an indirect result of cheap transportation through the latter's stimulus to large-scale production, territorial division of labor, and the resulting exchange of commodities.

LOW FREIGHT RATES IN THE PUBLIC INTEREST

Since cheap transportation contributes to the prosperity of society by making possible the production of more goods at less cost, it follows that the public interest requires the lowest possible freight rates. The lower the rates, the greater will be the benefit to society. Nowhere is this more apparent than in connection with geographical division of labor. Each reduction in transportation charges develops possibilities of specialization and exchange that were not apparent before. Conversely, any increase in transportation charges breaks down geographical division of labor. The increases in freight rates which took place during and after World War I furnish proof of this truth. These increases made it impossible for many communities to specialize as had been their custom. Producing areas remote from markets were the most adversely affected. This was particularly true in agriculture.

There is almost always a possibility of specialized production in a given region if transportation charges can be reduced. It is for this reason that the public is constantly seeking lower freight rates and attempting to develop cheaper agencies of transportation. Agitation for the Government to improve rivers and develop water transportation is rooted in the same cause. The constant pressure to reduce freight rates is often embarrassing to the railroads because the cost of providing

the service imposes limits to the reduction of charges. It is natural for the railroads to meet this situation, at times, by diverting attention from the rate level and emphasizing the importance of good service.¹⁵ Although the importance to shippers and to the public of adequate service is not to be minimized, it remains true that the interest of the public lies in getting transportation service at the lowest possible cost. If the cost of transportation could be reduced to zero, i.e., if transportation could be put in the class of "free goods," society would be the gainer. The chief obstacle to the production of goods in the most favored locations and under the most favorable conditions would be removed. But this must be forever impossible since the movement of goods from place to place requires the expenditure of energy and human effort.

LIMITS TO FREIGHT-RATE REDUCTIONS

We have seen that it is clearly in the interest of society to have cheaper and cheaper transportation. It is not to be inferred, however, that the cost of providing the transportation service can be ignored, or that freight rates can be reduced below the cost of service. Railroads in the United States are privately owned and must compete with other enterprises for capital. In the absence of a government guaranty this means that investors in and owners of railroads must be rewarded if further capital is to be forthcoming. But even if railroad earnings were guaranteed by the state, or if the government owned the railroads and could support them from the proceeds of taxation, it would still be economically unsound to ignore costs of transportation in fixing rates. If the savings in production costs occasioned by territorial specialization are offset by greater expenditures incurred in transporting the goods, there is an economic loss to society by the process. Professor Taussig has stated the principle thus: "No gain comes from carrying a thing from one place to another unless it can be produced at the first place so much more cheaply that it can afford the cost of carriage to the second. Ability to stand the transportation charge is the test of the utility of the carriage."¹⁶ There is a social loss in the transportation of goods

¹⁵ For example, Mr. Howard Elliott, former chairman of the Northern Pacific Railroad Company, has said: "... the true interest of the people is not so much in the level of rates the first cost of transportation—as in the character and adequacy of the service." *The Economics of Modern Transport* (New York, Committee on Public Relations of the Eastern Railroads, 1926), p. 10.

¹⁶ *Op. cit.*, vol. II, p. 391. The same point is developed in a different manner and more elaborately in Newcomb, H. T., *Railway Economics* (Philadelphia, Railway World Publishing Company, 1898), chs. XII and XIII.

if the cost of transporting them is greater than the saving caused by production under the most favorable conditions.¹⁷

TREND OF FREIGHT RATES IN THE UNITED STATES

The introduction of railroads greatly reduced transportation charges in the United States. The cost of transporting wheat and corn over ordinary highways was sometimes estimated to have been 20 cents per

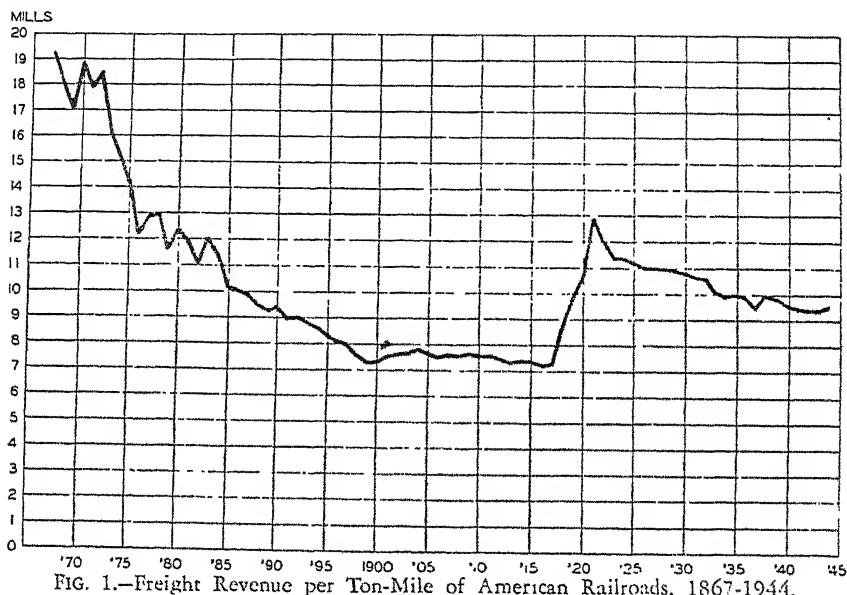


FIG. 1.—Freight Revenue per Ton-Mile of American Railroads, 1867-1944.

ton-mile before the era of railroads.¹⁸ Even after railroads were constructed, the possibility of inducing a greater flow of traffic by lower rates and so reducing unit costs of operation was not realized at once. The chart in Fig. 1, showing the revenue per ton-mile received by the railroads for transporting freight from 1867 to 1944, can be used to indicate the average charge for shipping freight by rail in the United States.¹⁹ The revenue per ton-mile declined from 19 mills in 1867 to

¹⁷ As will be developed in later chapters it is not necessary that the charge for a particular service should cover a proportionate share of all the overhead or constant expenditures of a railroad in order to prevent economic waste. Under some conditions no social loss is involved if certain services are performed at a charge that only covers out-of-pocket costs.

¹⁸ Poor, *op. cit.*, p. 11.

¹⁹ Revenue per ton-mile is not a satisfactory index of freight rates since changes in the proportion of low-grade or high-grade freight, or in the ratio of short-haul to long-haul traffic affect the figure although freight rates remain unchanged. The figures can be used,

7.2 mills in 1899. The variations were unimportant from 1899 to 1916. Thereafter, the revenue per ton-mile rose from 7.2 mills in 1916 to 12.9 mills in 1921. Since then the figure has declined to about 9.5 mills.

Freight revenues per ton-mile are less in the United States than in most countries of the world. In 1936 they were 24.3 mills in Great Britain, 24.4 mills in Germany, and 22.3 mills in Italy. In France the figure for 1935 was 19.5 mills. The figure for Canada is practically the same as for the United States. Only Japan, with revenues per ton-mile of 6.8 mills in 1936, showed a rate level appreciably lower than in the United States.²⁰ Comparisons of this sort must be made reservedly, for they tend to exaggerate the differences in rates. Express traffic is excluded from the computations for the United States, while in many countries the traffic corresponding to our express traffic is handled directly by the railroads. As this is high-grade traffic it tends to increase the average revenue per ton-mile. The length of haul is shorter in many other countries, and since rates on short-haul traffic are generally higher per mile than on long-haul traffic, it is natural that ton-mile earnings should be higher in countries with short rail hauls. Comparisons are also subject to error because of variations in the rates of exchange. Even after such allowances are made, it remains true that the freight rates of the United States have been comparatively low.

The low freight rates in the United States explain the enormous volume of tonnage carried by our railways. We have seen how reductions in freight rates reveal possibilities of trade and specialization that were not apparent before. This accounts largely for the enormous volume of traffic that accompanies low freight rates. The chart in Fig. 2 shows the ton-miles of freight carried by the railroads of the United States from 1890 to 1944.²¹

It is estimated that in 1882 the railroads of the United States transported about 39,300,000,000 ton-miles of freight.²² In 1890 the rail-

however, for the purpose of showing the average receipts per unit of traffic. The figures prior to 1889 are from Newcomb, H. T., *Charges in the Rates of Charge for Railway and Other Transportation Services*, U.S. D.A., Div. of Statistics, Bull. No. 15, rev. (1901), p. 14. Figures since 1889 are from Interstate Commerce Commission.

²⁰ These figures were supplied by the Bureau of Railway Economics of the Association of American Railroads.

²¹ Figures are from the Interstate Commerce Commission.

²² Interstate Commerce Commission, Bureau of Statistics, *Railway Statistics before 1890* (mimeographed, 1932).

roads carried 76,207,000,000 ton-miles. This figure increased to 450,189,000,000 ton-miles in 1929. The steep decline after 1929 was caused by the severe depression which set in late in that year. The low point reached during the depression was 235,308,000,000 ton-miles

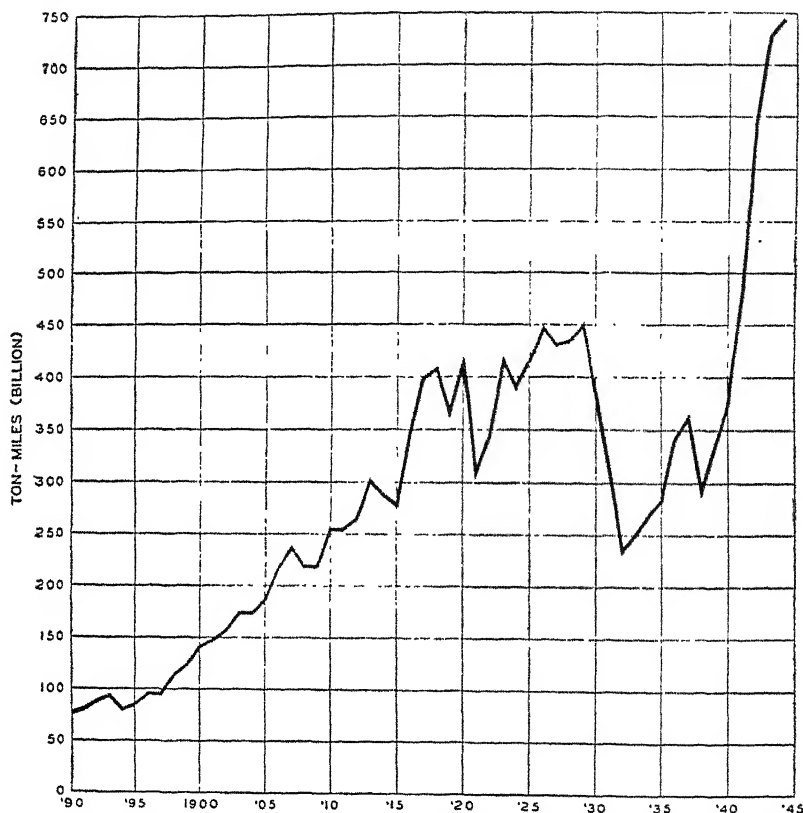


FIG. 2.—Ton-Miles of Freight Carried by Railroads of the United States, 1890-1944.

in 1932. By 1940 the figure had recovered to 375,369,000,000 ton-miles. The effect of World War II was to increase the ton-miles of freight carried to an all-time high of 740,590,000,000 in 1944.

SIZE OF THE TRANSPORTATION INDUSTRY

Since reduced transportation charges greatly increase the amount of freight which is transported, it follows that as freight rates are reduced the amount of capital and labor devoted to transportation will tend to increase. It was estimated in 1937 that the total investment in

intercity transportation facilities in the United States was \$53,215,000,000.²³ Another estimate places the total investment in transportation facilities at \$65,800,000,000, or approximately 18 percent of the national wealth.²⁴ According to the 1940 census of the United States, nearly 5 percent of the employed workers in the United States were employed in the transportation industry. This figure does not include the thousands who are indirectly employed in transportation, such as those who produce equipment, materials, supplies, and fuel used by the transportation industry. An estimate by the Bureau of Statistics of the Interstate Commerce Commission indicates that in 1936 the total transportation bill of the country was more than \$22,000,000,000.²⁵ It is clear from the above figures that very large amounts of capital and labor are devoted to the business of transporting persons and property from place to place. Probably a larger proportion of the total productive energy of society is being expended on transportation today than in any other period of history. The revenues of for-hire carriers alone normally constitute between 9 and 10 percent of the national income.²⁶

IS TRANSPORTATION WASTEFUL?

Some observers, looking at the large amounts of capital and labor devoted to the business of transportation, have concluded that here is a great social waste, an unnecessary expenditure that could be in large measure eliminated. It is alleged that although some transportation is necessary, there is a great deal of it that is unnecessary. The prodigal waste of energy spent in the useless hauling of goods is held to be an important factor in making prices high. Those who take this position suggest as a remedy the decentralization of industry, and local self-sufficiency. The production of flour, for example, by thousands of small mills scattered throughout the grain-growing regions, and the slaughter and packing of meat in small establishments located near the supplies of livestock are advocated.²⁷

Although it must be admitted that there is some wasteful trans-

²³ Statement of Commissioner W. M. W. Splawn before the Committee on Interstate and Foreign Commerce, House of Representatives, in Hearings on H.R. 2531, *Omnibus Transportation Bill*, vol. I (1939), pp. 24-25.

²⁴ Dewey, Ralph L., in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), p. 279.

²⁵ *Immediate Relief for Railroads*, 75th Cong., 3d sess., House Doc. No. 583 (1938), pp. 9-10.

²⁶ *The Cleveland Trust Company Business Bulletin*, April 15, 1944.

²⁷ For a vigorous exposition of this point of view, see Henry Ford, *My Life and Works* (Garden City, N.Y., Doubleday, Page & Co., 1922), pp. 230-233.

portation performed by our railroads, the contentions of those who allege an enormous social waste in our transportation system are not justified. The criticism fails to recognize the advantages that accrue from geographical division of labor, large-scale production, and the location of industries at the most favored sites. The decentralization of industry, and production on a small scale over much more extensive areas would, of course, reduce the amount of transportation service required and the amounts spent on freight rates. This would undoubtedly be more than offset by higher costs of production. The decentralization of industry and the creation of a multitude of smaller plants, such as flour mills and packing houses, could easily be brought about by the simple expedient of increasing freight rates. We would be worse off rather than better off if this were done. Increased rates would give local producers an advantage enabling them to undersell the more distant producers who might be securing the advantages of large-scale production and who might, because of favorable location, have cheaper costs of production. There is, in fact, some indication that increases in freight rates during and after World War I had exactly this effect.²⁸

TRANSPORTATION COSTS VS. OTHER COSTS OF PRODUCTION

The belief that transportation is wasteful is based upon a misunderstanding of the relation between transportation costs and other expenses of production. In the typical case of geographical division of labor, transportation costs are in part substituted for other costs of production. This can be illustrated by Fig. 3.

Suppose there are two places, A and B, either of which can produce all the goods of a certain kind which are consumed in M. Suppose furthermore, that the cost of producing the goods is \$6 per ton at A and \$3 per ton at B. The cost of transporting the goods from A to M is \$2 per ton, and from B to M is \$6 per ton. Although the goods can be produced at B for \$3 per ton, B cannot supply the market at M, for the delivered price would be \$9 (\$3, cost of production, plus \$6, freight), while A can lay the goods down in M for \$8 (\$6, cost of production, plus \$2, freight). Now suppose rates are reduced by one-half. A could now sell the article in M for \$7 (\$6 plus \$1), but B can sell it for \$6 (\$3 plus \$3). As a result B now supplies the market.

²⁸ See chs. II and III.

The price has been reduced from \$8 to \$6. The former price of \$8 represented a cost of production at A of \$6, and \$2 for freight. The present price of \$6, represents a cost of physical production of \$3, and freight of \$3. Although the price has been reduced, more is spent on freight than before, and less is spent on the cost of physical production. Transportation costs have been substituted for other costs of production. From this it will be seen that the money spent on transportation is well spent if the saving in costs of production at the producing point is greater than the freight rate.

The situation in Fig. 3 is perhaps unusual in that the decline in freight charges forces the nearby production point out of business in favor of a more distant producing point. Although this sometimes happens, a more usual situation is for the lowered freight rates to

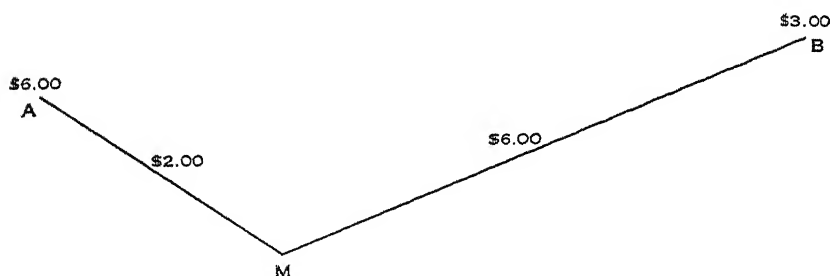


FIG. 3.—Relation of Transportation Costs to Other Costs of Production.

enable a distant producer to share the market with the nearer producer. The nearby producer is not always displaced by a more distant producer but is forced to divide the market with him.

The illustration used above demonstrates another and related result which frequently follows reductions in rates. As the freight rates are reduced, the rate becomes a larger proportion of the delivered price of the good. Thus, in the illustration, when A supplied the market, the freight rate represented one-fourth of the delivered price. When the rates were reduced and B began to supply the market, the rate represented one-half the delivered price.

The real significance of improved transportation cannot be understood until it is realized that, as transportation rates are reduced, more money is spent for transportation and less for creating form utilities. One of the earliest expositions of this was by a French engineer named Dupuit. After a demonstration of the principle, M. Dupuit said: "The

ultimate purpose of a means of transportation ought not to be to reduce the expenses (total expenses) of transportation, but to reduce the expenses of production."²⁹

THE TRANSPORTATION SYSTEM

We are now in a position to take a brief glance at the transportation system which has been built up in the United States in an effort to provide cheap and expeditious transport.

There are five principal modes of transportation. These are: (1) railroad transportation; (2) transportation by water; (3) highway transportation; (4) pipe-line transportation; and (5) transportation by air. These forms of transportation are not of equal importance, quantitatively speaking, yet each has its peculiar advantages and its distinctive place in the transportation system of the country.

In terms of miles of improved transportation facilities or "ways" the five modes of transport stand as follows:

	Miles
Steam railways, miles of road (1944) ³⁰	227,335
Highways (1941) ³¹	3,309,000
Primary State highways	332,000
Secondary and local roads	2,604,000
Town and city streets	304,000
Roads in National parks, forests, etc.	68,000
Inland waterways, 6-ft. channel or more (1939) ³²	15,868
Pipe lines, petroleum (1946) ³³	144,000
Airways (1946) ³⁴	36,146

Some idea of the relative importance of each of the five modes of transport in the whole transportation system can be obtained from a comparison of the ton-miles of freight which they carry. This comparison is made in Table II.

²⁹ "... le but final d'une voie de communication doit être pas de diminuer les frais de transport, mais de diminuer les frais de production." Dupuit, "De la mesure de l'utilité des travaux publics," *Annales des Ponts et Chaussées*, 2d series, v. 8 (1844), pp. 351-352. The same principle is described in Black, *op. cit.*, pp. 813-814.

³⁰ Interstate Commerce Commission, *Annual Report*, 1945, p. 133.

³¹ From Public Roads Administration.

³² Board of Investigation and Research, *The National Traffic Pattern*, 79th Cong., 1st sess., Senate Doc. No. 83 (1945), p. 4.

³³ Surplus Property Administration, *Government-Owned Pipe Lines* (1946), p. 9.

³⁴ From Civil Aeronautics Administration.

TABLE II
VOLUME OF INTERCITY FREIGHT TRAFFIC BY
KINDS OF TRANSPORTATION, 1944²⁵

Agency	Ton-Miles	Percent of Total
Railways, steam and electric (mail and express included)	745,854,000,000	69.92
Highways (excluding rural to rural)	49,308,000,000	4.62
Inland waterways, including Great Lakes	139,150,000,000	13.04
Pipe lines	132,336,000,000	12.41
Airways (mail and express included)	69,000,000	0.01
Total	1,066,717,000,000	100.00

The comparison of the five modes of transport on the basis of passenger-miles is shown in Table III.

TABLE III
VOLUME OF INTERCITY PASSENGER TRAFFIC BY
KINDS OF TRANSPORTATION, 1944²⁶

Agency	Passenger-Miles	Percent of Total
Railways, steam and electric	97,704,000,000	34.60
Highways:		
Busses	28,979,000,000	10.26
Private automobiles	151,251,000,000	53.56
Inland waterways, including Great Lakes	2,187,000,000	0.78
Pipe lines		
Airways	2,253,000,000	0.80
Total	282,374,000,000	100.00

Each of the five modes of transportation will be considered at some length in subsequent chapters of this volume.

SELECTED REFERENCES

The best references of a general nature dealing with the significance of improved transportation are: Dionysius Lardner, *Railway Economy* (New York, 1850), ch. I; Frederick A. Cleveland and F. W. Powell, *Railroad Promotion and Capitalization* (New York, Longmans, 1909), ch. V; Harry T. Newcomb, *Railway Economics* (Philadelphia, Railway World Publishing Co., 1898), ch. I; Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harpers, 1941), ch. 11.

For a discussion of geographical division of labor and the principle of comparative advantage, any standard text on the principles of economics would be helpful. The following references are especially good on this subject: F. W. Taussig, *Principles of Economics* (New York, Macmillan, 1921), 3d ed. rev.,

²⁵ From Interstate Commerce Commission, *Annual Report*, 1945, p. 13.

²⁶ *Ibid.*

vol. I, ch. 34; Taussig, *Some Aspects of the Tariff Question* (Cambridge, Harvard University Press, 1915), ch. III; Taussig, *International Trade* (New York, Macmillan, 1927), ch. IV; John D. Black, *Introduction to Production Economics* (New York, Henry Holt & Co., 1926), ch. V.

Other valuable references dealing with particular points raised in the chapter are Black, *op. cit.*, pp. 813-814; Dupuit, "De la mesure de l'utilité des travaux publics," *Annales des Ponts et Chaussées*, 2d ser., vol. 8 (1844), pp. 332-373; Newcomb, *op. cit.*, chs. XII and XIII.

CHAPTER II

FREIGHT RATES AND PRICES

CERTAIN facts about the relationship between freight rates and the prices of commodities may be inferred from points raised in the previous chapter. The subject deserves more detailed attention, however, since there has been much confusion concerning the effect of freight rates, and of changes in freight rates, on the prices of the commodities transported.

It is commonly maintained that the farmer pays the freight both on the things which he buys and on the things which he sells. On the goods which he buys, the price is said to be the factory price plus transportation and other costs incurred in getting the goods to the farm. On the things which the farmer sells, the price received is said to be the price at the consuming markets less transportation charges. Thus the farmer pays the freight both ways, it is argued. If this is true, it would seem that on manufactured commodities the freight rate is borne by the consumer, but on agricultural products it is borne by the producer. But this cannot be true unless one law determines the price of manufactured commodities and a different law determines the price of agricultural products. There seems to be equal confusion, or at least inconsistency, on the part of the railroads. When the farmers and other producers seek lower rates, or oppose higher ones, they are often told by the railroads that the consumer pays the freight, and that therefore the producers would not be burdened by an increase, while the consumers would reap the benefit of a reduction. But when the consuming public protests against rate increases, it is informed that prices will not be affected because the rate increase will, in most cases, be absorbed by producers or by dealers, and that if the increase should be passed on to the consumer, it is an infinitesimal part of the price and can be ignored.

FREIGHT RATES AS A COST OF PRODUCTION

With so much confusion about the matter, the relation of freight charges to prices calls for careful analysis. In approaching the problem it should be recognized that transportation charges are part of the costs of production. The term "cost of production" is broad enough to cover all the costs necessary to put a commodity in the hands of consumers.

As was noted in our first chapter, production is often defined as "the creation of utilities," and transportation is recognized as creating "place utilities." If we recognize transportation costs as a part of the cost of production, the conclusion seems incontrovertible that in the long run transportation costs, like other costs of production, must be included in the price of the good. The short-time result may be quite different, but in the long run prices must be high enough to cover costs of production, including transportation charges, or goods will not be produced.

SHIFTING OF FREIGHT-RATE INCREASES

Although freight rates are included in the price of a good, it does not follow that an increase in freight rates will always raise the price by the amount of the increase in freight rates. This is because the increase in the price of a commodity tends to curtail consumption; production must be readjusted to the new conditions of demand; and a new equilibrium of supply and demand must be established.

The effect of increases in freight rates follows exactly the same laws that determine the shifting and incidence of taxes on commodities. The extent to which an increase in freight rates will raise prices will depend upon both the elasticity of demand and the elasticity of supply. The principles can be easily demonstrated by the use of conventional supply-and-demand diagrams familiar to students of economics. In the analysis which follows, it must be assumed that the increase in freight rates will not be evaded by resort to some other agency of transportation or by the relocation of producing centers. Changes of the latter sort will be discussed in the following chapter.

INFLUENCE OF ELASTICITY OF DEMAND

The less elastic the demand for a commodity, that is, the less its consumption is affected by price changes, the greater will be the tendency for an increase in freight rates to raise the price of the good.¹ Conversely, the more elastic the demand, the less will the price be raised. The situation is illustrated in Fig. 4.²

The demand curve DD in Fig. 4, A, is steep, which means that the

¹ For the purposes of this analysis we are interested in relative elasticity or inelasticity of demand for two different commodities, and not whether elasticity is greater or less than unity.

² The accompanying diagrams are highly geometricized for the purpose of demonstration.

demand is relatively inelastic. In other words, an increase in price will only slightly curtail consumption. In Fig. 4B the demand curve is less steep, which means that the demand for the commodity is elastic, and an increase in price will curtail consumption considerably. The supply curves SS are alike in both diagrams. Any differences in the result of a rate increase as shown by the two diagrams will be, therefore, the result of differences in the elasticity of demand, and not of differences in elasticity of supply.

The supply curves SS represent the cost of producing various units of the supply, including the cost of transportation. An equilibrium of supply and demand is established, and the price is represented by the

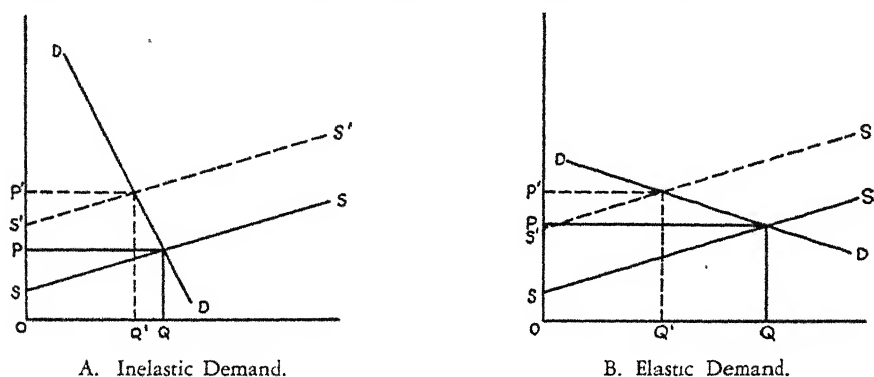


FIG. 4.—Inelastic and Elastic Demand.

distance OP , and the quantity produced by the distance OQ . Now if we assume that the freight rates on the two articles in question are increased by the amount SS' in such manner that the increase applies equally to each unit produced, there must be a new cost curve $S'S'$. A new equilibrium of supply and demand is established. The price becomes OP' , and the quantities produced OQ' . The point to be noted is that the price was raised more in Fig. 4A where demand was inelastic, than in Fig. 4B, where demand was elastic. This was because the new equilibrium was not established in Fig. 4B until production had been curtailed considerably. The cost of production is lower on the smaller quantity now produced. In Fig. 4B the distance PP' is considerably less than the distance SS' ; in Fig. 4A the distance PP' is nearly as great as SS' . In Figs. 4A and 4B, the difference between the increase in freight rate and the increase in price is represented by the lowered cost of producing the marginal supply.

INFLUENCE OF ELASTICITY OF SUPPLY

The extent to which increased transportation costs will affect prices to the consumer also depends upon the elasticity of supply. Supply is elastic if a change in price will result in a considerable change in the quantity produced, inelastic if such a change in supply does not occur. Elasticity is largely, but not entirely, a question of the degree to which

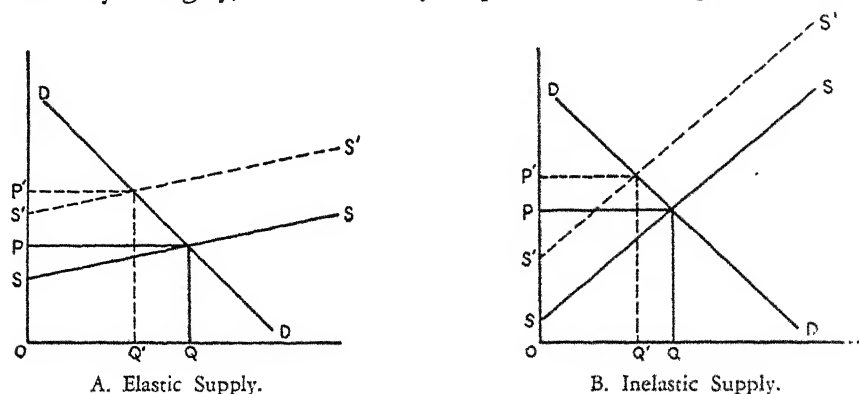


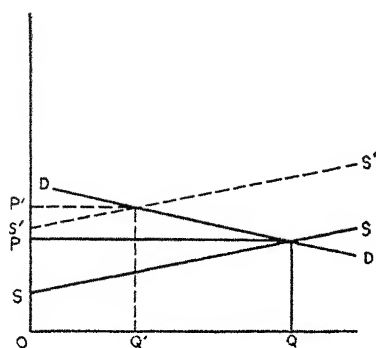
FIG. 5.—Elastic and Inelastic Supply.

costs of producing additional units of supply will be greater than the cost of producing the former supply. If the supply is elastic the imposition of an increased freight rate will be shifted to the consumer to a greater extent than if the supply is inelastic. This is because production can readily be adjusted to the new conditions in the first case, and cannot be in the second case. This principle is illustrated by Figs. 5A and 5B.

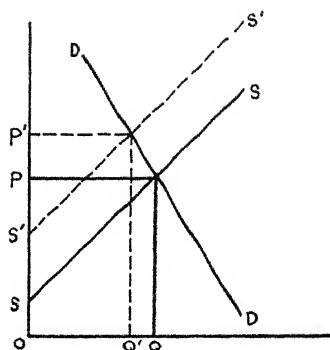
The elasticity of demand is the same in both figures, but the supply in Fig. 5A is more elastic than in Fig. 5B. If both commodities are subjected to the same rate increase, it is clear that in Fig. 5A more of an increase in price occurs. The distance PP' in Fig. 5A is greater than PP' in Fig. 5B.

It can easily be shown that if the cost curve SS becomes a horizontal line, the price would be increased by the amount of the increase in rates, but the quantity produced would depend upon the elasticity of demand.

It is interesting to note that if demand and supply are both elastic, an increase in rates might largely destroy the traffic, while if the demand and supply are both inelastic, an increased rate might have little effect on the volume of traffic. Figs. 6A and 6B show these two situations.



A. Elastic Demand and Supply.



B. Inelastic Demand and Supply.

FIG. 6.—Elasticity of Demand and Supply and Quantities Produced.

SHIFTING UNDER NONCOMPETITIVE CONDITIONS

The foregoing analysis of the influence of elasticity of demand and of supply assumed conditions of competition. It is not to be inferred, however, that the prices of all commodities are so determined. A monopolistic element of greater or lesser degree affects the prices of many commodities. The shifting of the burden of a freight rate increase may be different under pure monopoly than under conditions of competition. At first thought it might appear that in such a case the price would rise by the amount of the increase in rates since the monopolist can control the price. It must be recalled, however, that the monopolist does not charge a price which yields the highest profit per unit sold, but that he will tend to fix a price which will yield the largest total profit. This means that he must consider the quantity of goods that will be taken at different prices, and the cost of producing various quantities of the commodity. The monopolist may find that he is able to pass the burden of a rate increase to the consumer in whole or in part, or he may find that he must bear the rate increase in its entirety. The monopolist, however, must consider the elasticity of demand for his product and the conditions of production. The latter will determine what difference in costs of production may be occasioned by a change in output. In other words, elasticity of demand and the conditions of supply are as important here as under competitive conditions.

Many commodities of everyday use are produced by a small number of producers, that is, under conditions of duopoly or of oligopoly. In the production of other commodities the use of trade marks, branding, and advertising enables a producer to differentiate his product from

that of his competitors, and often to obtain a certain limited degree of monopoly power. This situation has been described as "monopolistic competition."³ Under conditions of duopoly, oligopoly, and monopolistic competition, prices tend to be higher than under conditions of competition, and may approach monopoly prices.⁴ The effect of a rate increase on commodities produced under these conditions may differ from a rate increase on articles produced under strictly competitive conditions, since there may be no elimination of marginal producers. The effect of a rate increase in a particular case may be unpredictable as under monopoly conditions, but in any event the elasticity of demand and the conditions of production will condition the result.

ELASTICITY OF DEMAND IN RATE CASES

The probable incidence of an increase in freight rates on particular commodities and the extent to which an increase may curtail production often become important matters in rate cases. In the Fifteen Percent Case of 1937-1938 general rate increases of 10 percent were authorized; but on certain commodities—anthracite coal, fresh meats and packing-house products—an increase of only 5 percent was permitted.⁵ In the case of anthracite coal the Commission felt that it was very doubtful, in the face of the declining demand and the rise of competing fuels, whether anthracite coal could stand an increase in freight rates without severely curtailing consumption.

THE BURDEN OF CURTAILED PRODUCTION

The statement made early in this chapter, that freight rates must ultimately be paid by the consumer, should not lead to the assumption that producers are indifferent to the level of rates on the commodities which they produce. The analysis of the process by which the shifting of a freight rate increase occurs through a readjustment of supply and demand reveals that curtailed consumption and curtailed production normally result from increasing the rates on a given commodity. Thus in Figs. 4 and 5 production is curtailed in each case, notwithstanding the fact that it may be said of each case that the burden of the rate increase has been shifted in varying amounts to the consumer. When goods are produced under competitive conditions by a large number of

³ Chamberlin, Edw., *The Theory of Monopolistic Competition* (Cambridge, Harvard Univ. Press, 1936).

⁴ *Ibid.*, chs. III and V.

⁵ 226 I.C.C. 41.

producers, curtailed production means the elimination of marginal producers. Such producers may therefore be considered the victims of the increased rates. When goods are produced by a small number of producers, the decreased production may not eliminate any of them. The curtailed production, however, may create a condition of unused capacity in the industry, the burden of which may fall upon the industry in the form of smaller profits or actual losses. This loss occurs even if prices are raised by the amount of the increase in rates.

ARE RATE INCREASES ABSORBED BY MIDDLEMEN?

It is often alleged that increases in freight rates, if small in amount, will be absorbed by producers or by the various jobbers and retailers who handle the goods, and that prices will not be increased to the consumer. This contention is sometimes advanced by the railroads when they are seeking general rate increases.⁶ Such increases may be absorbed for a time. Increases and decreases in rates may decrease or increase the profits of producers and middlemen for a while, but as long as competition operates in these lines of endeavor, the consumers will eventually bear the burden of increases and will benefit by reductions in rates.

ARE FREIGHT RATES "PYRAMIDED"?

The opposite contention is often advanced by consumers. It is said that freight rates are "pyramided," and a moderate increase in rates results in increasing prices by a greater amount. This pyramiding process is alleged to result from the practice of middlemen and retailers of selling goods at a certain percent over the price they paid. Thus if a freight-rate increase raises the price of a commodity to the retailer by 10 percent, and the retailer sets the price of his goods at 25 percent above cost, the 10 percent increase in rates increases the price to the consumer by 12½ percent. The more often this process is repeated, the greater becomes the cumulative effect of the rate increase.

This pyramiding undoubtedly occurs as a temporary result of rate increases. But the force of competition tends to eliminate it in the long run. If a dealer prices his goods at a fixed percent above their cost to him, and an increase in freight rates increases the price of the goods, the aggregate profits of the dealer are increased, and likewise the profits on the capital invested. In so far as he is subjected to competition, it is

⁶ See *Evidence Taken by the Interstate Commerce Commission in the Matter of Proposed Advances in Freight Rates by Carriers*, 1910, 61st Cong., 3d. sess., Senate Document No. 725 (1911), pp. 25, 2100-2101.

likely that these profits will disappear since our dealer will be forced to shade his prices in order to meet competition.

SHORT-TIME EFFECTS OF RATE CHANGES

It cannot be emphasized too strongly that the effects of such increases in rates as we have described are the long-time effects. Supply and demand must be given time to readjust themselves to the changed conditions before these effects become evident. It follows that the short-time effect of rate changes may be quite different from the long-time effects. Absorption of the rate increase by producers or by dealers, and "pyramiding," may occur as short-time effects. That the short-time result of a rate increase may differ from the long-run effect was recognized in the Fifteen Per Cent Case of 1931. Manufacturers naturally opposed the increase but were told by representatives of the carriers that the burden could be passed along to the consumer. In reply it was pointed out that although this might normally be the case, such a result was highly improbable in time of depression when most manufacturers were making no profit. "If the producers cannot secure adequate prices for their commodities to compensate them for the present lowered cost of production, it necessarily follows that they would at this time be unable to pass on to the consumer any increased cost of production."

A change in freight rates cannot in itself affect the demand for an article. Neither can it immediately affect the supply. Supply can adjust itself to the new conditions more quickly in some cases than in others. In the case of most agricultural products, supply cannot usually be increased in less than a year. An even longer period of time is necessary for fruit and for livestock. Since a reduction in rates does not affect either the demand or the supply of the goods immediately, a fund is created which may be drawn upon by either buyers or sellers.⁸ Who will benefit by the reduction will be determined by the relative bargaining strength of buyers and sellers. In a buyers' market, that is, when there is a surplus of the commodity available and sellers are inclined to sell for whatever they can get, it is likely that the buyers will gain by the reduction. On the other hand, in a sellers' market, that is, when there is a shortage of the goods in question, competition between buyers

⁷ Warner, Joseph E., *Brief of Commonwealth of Massachusetts Before the Interstate Commerce Commission, Ex Parte 103*, (1931), p. 7.

⁸ We are here following an analysis by Dr. C. S. Morgan, economist for the Interstate Commerce Commission in *Who Bears the Freight Rate?* (New York, Committee on Public Relations of the Eastern Railroads, 1929).

in bidding for the supply will be reflected in a higher price to the seller. Here, therefore, the benefit of the rate reduction will go to the producers of the goods.

GOODS SOLD AT A UNIFORM PRICE TO CONSUMERS

Many manufactured articles are sold through the country, or over smaller areas, at uniform prices to consumers. Here, at first sight, there seems to be no relation between freight rates and prices, since differences in freight charges do not result in different prices to consumers. In reality, this situation constitutes no exception to the general statement that freight rates enter into the price of goods. The freight has to be paid by someone, and it is a cost of getting the goods to the consumer. If, for instance, a manufacturer is selling goods in different places at uniform delivered prices, he realizes a greater net amount from the sale in nearby territory, and a smaller amount from the sale in a distant area. But, in the long run, he must obtain a price sufficient to cover his manufacturing costs plus the freight charges which he pays. When goods are sold at uniform delivered prices, the consumer near the factory is ordinarily paying more freight than was incurred on his particular purchase, and the consumer located at a distance pays less freight than was incurred on his purchase.

RATIO OF FREIGHT RATES TO PRICES

Since freight charges are normally included in the sale price of

TABLE IV
RETAIL PRICES OF COMMODITIES AND FREIGHT RATES, 1910⁹

Commodity	From	Shipped To	Retail Price	Freight Rate	Percent Freight Rate of Price
Dressed beef, per lb.	Chicago	New York	\$ 0.225	0.45¢	2.00
Ham and bacon, per lb.	Chicago	New York	0.265	0.30	1.13
Lard, per lb.	Chicago	New York	0.20	0.30	1.50
Eggs, per doz.	Iowa	New York	0.50	1.50	3.00
Flour, per 50 lbs.	Minneapolis	New York	1.70	12.50	7.35
Men's suits, each	Boston	New York	23.50	1.9	0.081
Men's suits, each	Boston	Chicago	23.50	4.2	0.179
Men's suits, each	Boston	St. Louis	23.50	5.0	0.213
Women's suits, each	Boston	New York	22.50	2.5	0.111
Women's suits, each	Boston	Chicago	22.50	5.6	0.249
Women's suits, each	Boston	St. Louis	22.50	6.6	0.293
Gloves, per pair	Gloversville	New York	1.37	0.55	0.401
Shoes, per pair	Boston	New York	4.00	0.5	0.125
Shoes, per pair	Boston	Chicago	4.00	1.4	0.350
Shoes, per pair	Boston	St. Louis	4.00	1.66	0.415

⁹ *Evidence, Proposed Advances in Freight Rates by Carriers, 1910, 61st Cong., 3d sess., Senate Document No. 725 (1911), vol. 10, op. p. 5930.*

goods, it is desirable to have some information that will tell us quantitatively how important the transportation charge is in the prices of ordinary articles of consumption. This becomes particularly important when percentage changes in rates are being made, for the effect on price will be greater if the freight charge is already a substantial portion of the price of the article.¹⁰ Figures are frequently published by the railroad interests to show how small the transportation charge is, either absolutely, or as compared with the price paid for common articles of consumption. Table IV, taken from the evidence of the carriers in the Rate Advance Cases of 1910, is typical.

The commodities listed in Table IV are commodities of relatively

TABLE V
RELATION OF TRANSPORTATION COSTS TO WHOLESALE PRICE AT DESTINATION OF REPRESENTATIVE FRUITS AND VEGETABLES SOLD IN BOSTON, CHICAGO, NEW YORK, PHILADILPHIA, PITTSBURGH, AND OTHER CITIES, SEPT., 1920 TO JULY, 1921¹¹

	No. of Cars Studied	Proportion of Wholesale Price Absorbed by Transportation Costs
Texas cabbage	65	75.12%
California cabbage	20	70.80
Southern cabbage	60	66.35
California cauliflower	90	57.98
California onions	10	57.06
Texas spinach	652	54.78
Florida and California celery	147	50.76
California lettuce	617	47.15
Texas onions	395	46.91
Watermelons	75	44.89
California cantaloupes	451	41.66
Prunes	48	41.53
Northern cabbage	331	40.90
Boxed apples	1,466	36.23
Maine potatoes	295	35.15
Northern onions	1,007	30.83
Southern potatoes	63	28.83
California grapes	140	28.11
Bulk apples	18	28.02
Asparagus .....	..	27.77
Florida citrus fruit	204	26.65
Northern potatoes	355	20.16
Tomatoes	104	19.89
Sweet potatoes	56	16.62
Strawberries	113	13.43
Northern grapes	83	12.40
Barreled apples	2,022	12.00

¹⁰ For further development of this point, see Vaile, R., "Some Effects on Certain Agricultural Products of Uniform Percentage Increases in Freight Rates," 36 *Quarterly Journal of Economics* 718 (1922).

¹¹ *Report of the Joint Commission of Agricultural Inquiry*, 67th Cong., 1st sess., House Report No. 408 (1922), Part III, p. 31.

high value. When commodities of lower value relative to their weight or bulk are considered, and when rates are related to wholesale prices, the results are quite different. The information in Table V is taken from the report of the Joint Commission of Agricultural Inquiry. It shows that in 1920 and 1921 the rates on many fruits and vegetables from typical producing points represented a considerable portion of the wholesale price.

Further information concerning the relation of transportation charges to prices is revealed by studies which have been made by the Bureau of Statistics of the Interstate Commerce Commission. These studies show the relation of the freight revenue derived by the railroads from the transportation of various commodities to the average wholesale prices at destination. Table VI shows these relationships for a number of commodities.¹²

TABLE VI
RELATION OF FREIGHT REVENUE FROM VARIOUS COMMODITIES
TO AVERAGE WHOLESALE PRICE AT DESTINATION, 1941

Commodity	Percent, Freight Revenue of Value
All carload traffic.	7.26
Straw.	66.39
Salt.	60.97
Watermelons.	57.24
Bituminous coal	50.94
Gravel and sand	50.25
Cabbage.	43.18
Oranges and grapefruit	40.06
Anthracite coal	35.89
Pulp wood.	35.04
Potatoes, other than sweet	32.48
Cement	26.67
Brick, common	27.53
Lumber, shingles, and lath	18.59
Gasoline and other refined petroleum oils.	17.88
Wheat.	10.40
Flour, wheat	7.27
Sugar, beet or cane.	6.45
Automobiles.	5.75
Fresh meats.	4.69
Eggs.	4.65
Autotrucks.	4.15
Meats, cured, dried, or smoked.	3.93
Cotton, in bales.	3.28
Butter.	2.25
Leather.	1.18
Tobacco, manufactured products	0.84

¹² Bureau of Statistics, Interstate Commerce Commission, *Freight Revenue and Value of Commodities Transported on Class I Steam Railways in the United States, Calendar Year 1941* (Washington, mimeographed, 1943). The Bureau of Statistics has published similar studies based on prices at earlier dates.

The table shows that straw headed the list with freight revenue 66 percent of the value of the commodity at destination. At the other extreme was leather with the freight revenue only 0.84 percent of the value.

In drawing conclusions from figures which show the relation between transportation charges and prices, certain cautions should be observed. In the first place, the freight charge is a small proportion of the price of articles which have a high value relative to their weight or bulk, such as most manufactured articles. But on the cheaper articles the freight rate is a larger proportion of the price. Second, it should be remembered that the longer the haul the greater becomes the ratio of freight charges to prices if freight rates increase with distance. Evidence of this is shown in Table V. Thus the freight rate on northern cabbage to eastern and northern markets was 40.9 percent of the wholesale price; but on southern cabbage the rate was 66.35 percent, and on Texas cabbage was 75.12 percent. Third, the figures usually make no allowance for the rates on raw materials used in the manufacture of the goods. The freight rate on certain iron and steel articles may be a small part of the price, but if the transportation charges on iron ore and pig iron were taken into consideration, the freight element in the price would be increased. Fourth, ratios of freight charges to prices change, not only with changes in freight rates, but with changes in prices. In 1920 the transportation and refrigeration charges on deciduous fruits from California to eastern markets were 23 percent of the market price. In 1930 they were 51 percent. Transportation and refrigeration charges had increased only about 2 percent. The change in ratio was due to a decline in prices of fruits in eastern markets of more than 50 percent.¹³ Lastly, it should be remembered as was pointed out in an earlier chapter, that since low freight rates permit production to be carried on in the most advantageous locations, freight rates are sometimes substituted for other costs of production. This means that low rates may increase the ratio of transportation charges to prices, contrary to what is ordinarily expected.¹⁴

FREIGHT RATES AND THE INDIVIDUAL PRODUCER

Not only are producers interested in the level of rates on the par-

¹³ Railroad Commission of California, *Brief Before the Interstate Commerce Commission, Ex Parte 103* (1931), p. 8.

¹⁴ Pp. 16-18, *supra*.

ticular commodities which they produce, but each individual producer is interested in the particular rate from his place of production to the market or markets in which he sells. Once the forces of supply and demand have established a price in a given market, the ability of individual producers to sell in that market will often be determined by the freight rates they must pay. If the commodity is one for which central markets are established, the price received by a single producer will approximate the market price minus the costs of transportation. The most obvious illustration of this relationship is found in the case of farm products shipped to commission merchants in the cities. The farmer will receive a check for his produce which is the market price in the city less transportation charges, dealer's commission, and other charges which may be incidental to the sale of the product. It is sometimes asserted that this relationship between the price received by a producer and the freight rate is peculiar to agriculture. A manufacturer, it is asserted, can make the buyer pay the freight or can add the freight rate to the price of the goods. But the position of the individual manufacturer is no different from that of the individual farmer. If a manufacturer in Chicago wants to sell a commodity in St. Louis in competition with a manufacturer located at St. Louis, he must meet the latter's price. If the costs of manufacture are approximately the same in both cities, the Chicago manufacturer must absorb the freight rate from Chicago to St. Louis. In effect, the Chicago manufacturer will receive the St. Louis price less the transportation charge to St. Louis. If the Chicago manufacturer finds this price unremunerative, he must withdraw from the St. Louis market. Similarly, if two competing manufacturers try to sell in a common market which involves a longer haul from one producer than from the other, the one less advantageously located may be forced to absorb the difference between the rate which he must pay and that paid by his competitor. Most rate disputes that arise under the "undue preference and advantage" section of the Interstate Commerce Act furnish abundant proof of the general truth that once a market price is established individual producers receive the difference between that price and the rate to that market.

GEOGRAPHY OF PRICES

Ample evidence of the relationship between freight rates and prices received by producers is afforded by studies of the geography of prices. Fig. 7 shows that the average farm price of potatoes in the United

States is lowest in the areas of production most remote from markets. The farm prices increase in the direction of potato shipments, reaching the highest levels in the deficit areas most remote from the producing areas.

The price relationships shown in Fig. 7 are those of the main crop season. The geography of prices is quite different in the summer when

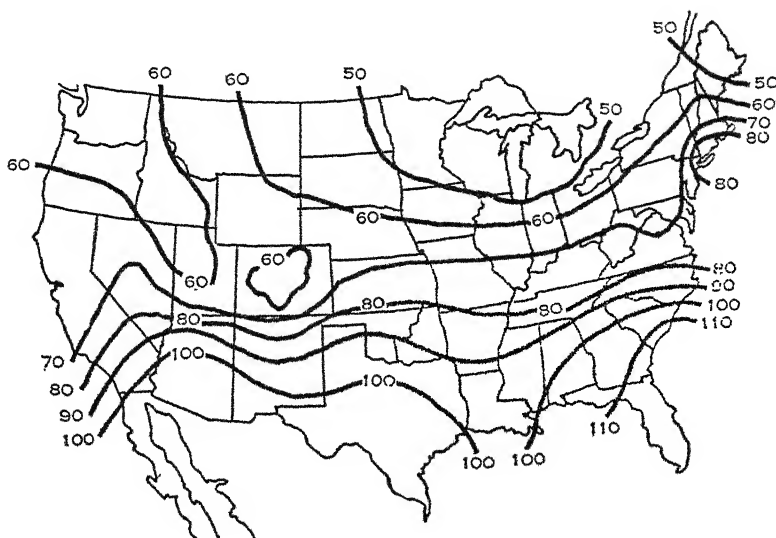


FIG. 7.—Isotims (Lines of Equal Price) of Ten-Year Average Farm Price of Potatoes (1906-1915) (Cents per Bushel).¹⁵

the new potatoes from the South are put on the market. During this season the prices are lowest in the South and increase along the lines followed by the shipments in their northward movement.¹⁶

Similar relationships can be observed from the average farm prices of other commodities. Table VII shows how distance from markets affects the farm prices of hay and wheat.

Examples of the relation between freight rates and the geography of prices may be found in abundance. Farm prices of fluid milk in the New York and Boston milk sheds decline with distance from market at

¹⁵ Working, Holbrook, *Factors Determining the Price of Potatoes in St. Paul and Minneapolis*, University of Minnesota Agricultural Experiment Station, Technical Bulletin No. 10 (St. Paul, 1922), p. 6.

¹⁶ Working, Holbrook, "Factors Influencing Price Differentials Between Potato Markets," *Journal of Farm Economics* 377, 379 (1925).

TABLE VII

FARM PRICE OF WHEAT AND HAY IN DIFFERENT STATES, SHOWING INFLUENCE OF DISTANCE FROM MARKETS¹⁷

	Average Farm Price, Dec. 1, 1921	
	Wheat (per Bu.)	Hay (per Ton)
New York	\$1.08	\$18.00
Ohio	1.08	11.50
Indiana	1.06	13.00
Illinois	1.00	13.50
Iowa	0.88	9.30
Nebraska	0.83	7.00
Colorado	0.76	6.90

the same rate as costs of shipping fluid milk increase.¹⁸ The Interstate Commerce Commission has pointed out that prices paid for cotton in the interior of the South are ordinarily the price in a primary market less the transportation cost to market.¹⁹ The prices of livestock increase as one goes east from Chicago, and grow less as one goes west from Chicago towards the areas of livestock production. Thus the market prices of hogs per hundred pounds on July 12, 1923, were from \$7.10 to \$7.15 at Kansas City; \$7.15 to \$7.30 at Omaha; \$7.40 to \$7.80 at Chicago; \$7.85 to \$8.00 at Indianapolis; \$8.25 at Cleveland; and \$8.00 to \$8.40 at Buffalo.²⁰

The map on page 36 shows the average farm price of wheat by States for a five-year period. The States which have the lowest prices of wheat are in the producing regions most remote from markets. Prices increase in the direction of grain movement, that is, towards the Atlantic seaboard, the Gulf, and the Pacific Coast. Even higher prices are found in regions off the routes of grain movement which produce less grain than they consume. A more accurate picture of the situation could be shown if farm prices were given by smaller geographical units. A careful study of farm prices of wheat by counties was published by the United States Department of Agriculture in 1918.²¹ The study showed that the lowest wheat prices were found in parts of Montana and Idaho. Prices graduated upward in every direction

¹⁷ Joint Commission of Agricultural Inquiry, *op. cit.*, pp. 94 and 107.

¹⁸ Cassels, John M., *Study of Fluid Milk Prices* (Cambridge, Harvard University Press, 1937), p. 162. and map on p. 161.

¹⁹ *Cotton from and to Points in the Southwest and Memphis, Tenn.*, 208 I.C.C. 677, 693 (1935).

²⁰ *Morrell & Co. v. New York Central R. R. Co.*, 104 I.C.C. 104 (1925).

²¹ Zapoleon, L. B., *Geography of Wheat Prices*, U.S. Dept. of Agriculture Bulletin No. 594 (1918). Studies were also published of the farm prices of oats and corn, Bulletins Nos. 696 (1918), and 755 (1919).

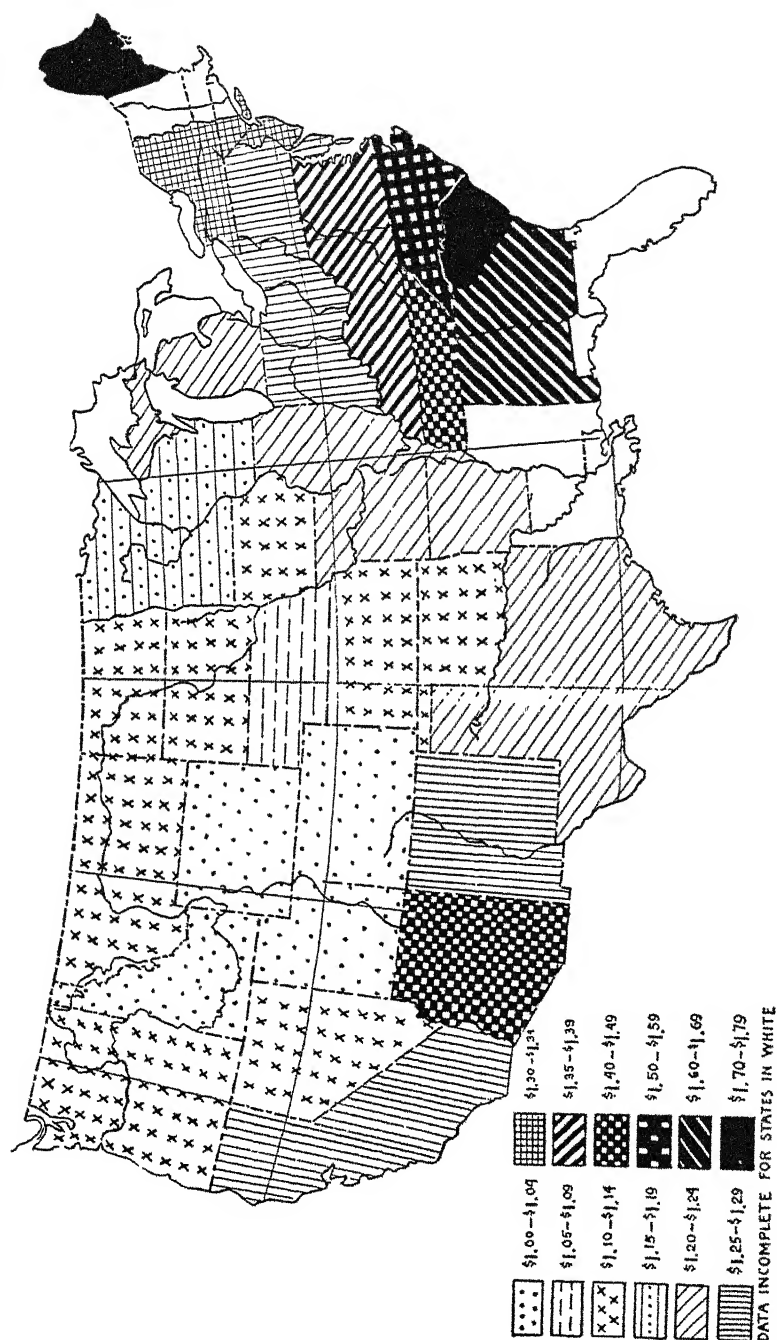


FIG. 8.—Geography of Wheat Prices.

from this region following closely the direction of grain shipments. Prices on the Pacific Coast were lower than on the Atlantic Coast because of the remoteness of the Pacific Coast ports from Liverpool, the central wheat market of the world. The highest prices were found in the deficit areas in the Southeast.

The Department of Agriculture has made the following generalizations from price studies of the sort described: first, in a surplus area the price is roughly equivalent to the primary market price less the costs of marketing; second, in a deficit area the price is roughly equivalent to the price in the farthest surplus-producing area from which it draws its supplies, plus the cost of transportation and handling.²²

GRAIN PRICES

For commodities which have a central world market, such as wheat, there is normally a very definite relationship between prices in different parts of the world; and the differences in prices are largely explained by differences in freight rates. When the United States was a large producer of wheat for export the prices in the United States and Liverpool were closely related. The price of wheat in the United States corresponded roughly to Liverpool prices minus transportation and other charges on shipments from the United States to Liverpool. Although this relationship has often been disputed,²³ it has existed in a general way. Careful studies which have been made confirm this view.²⁴

When the Liverpool price of wheat exerts a dominating influence on the price of wheat in the United States, one would expect to find that the prices of grain in the various grain markets in the United States would differ, and that the differences would correspond closely to the differences in the freight rates to Liverpool. Such relationships commonly existed when the United States was a large exporter of grain.

²² U.S. Dept. of Agriculture, *Prices of Farm Products Received by Producers*, Statistical Bulletin No. 17 (1927), pp. 3-4; Sarle, C. F., *Reliability and Adequacy of Farm Price Data*, U.S. Dept. of Agriculture, Dept. Bulletin No. 1480 (1927), p. 3.

²³ Bureau of Railway Economics, *A Study of the Economic Effect of Reductions in Freight Rates on Export Wheat*—1929. Bulletin, Special Series No. 55 (Washington, 1930); "Wheat Rates and Prices," 87 *Railway Age* 135 (1929); "Wheat Prices and Freight Rates," 87 *Railway Age* 803 (1929); Dunn, S. O., *Is There Economic Justification for Inland Waterway Development?* (an address, 1931), p. 13.

²⁴ Andrews, Frank, "Freight Costs and Market Values," *U.S. Dept. of Agriculture Yearbook*, 1906, pp. 371-386; Zapoleon, L. B., *op. cit.*, p. 16; U.S. Federal Trade Commission, *Report on the Grain Trade*, vol. VI (1924), p. 109; Secretary of Agriculture, *Prices of Wheat to Producers in Kansas*, 63d Cong., 3d sess., House Document No. 1271 (1914).

The Federal Trade Commission found such a relationship between grain prices in the different markets in the United States, but noted that the average spreads for rather long periods appeared quite generally to be less than the freight rates. This was explained by the intermittent character of shipments between the large markets, and the influence on averages of the smaller differences in prices that exist when grain is not moving on a strict export basis because local conditions of supply and demand are in control of the markets in this country.²⁵ The same influence has affected the average spread between Liverpool and American wheat prices.

The difference between the price of grain in the primary grain markets and the price received by the farmer at a country elevator is likewise to be explained by freight rates. Fig. 9, constructed from data

1 CENT					SELLING COMMISSION	FREIGHT RATE	VALUE AT SHIPPING POINT
AT ST. LOUIS	6c	7.8c	9.6c	12c	12.6c		
TIPTON, MO.	62c	60.2c	58.4c	56c	55.5c		
WOODBURN, IOWA							
INDIANOLA, IOWA							
CRETE, NEBR.							
HUTCHINSON, KANS.							

FIG. 9.—Relation of Wheat Prices in Primary Market (St. Louis) to Price at Shipping Points. (No. 2 Red Winter Wheat, November, 1899.)²⁶

published by the Industrial Commission in 1901, shows the normal relationship between prices at country elevators and in primary grain markets. The farmers at the various country points would receive the sums represented on the diagram as "value at shipping point" less the

²⁵ Federal Trade Commission, *op. cit.*, p. 108.

²⁶ *Report of the Industrial Commission*, vol. VI (1901), p. 80.

elevator margin. This relationship, like the others which we have described, is not an invariable and exact relationship. The presence, or absence, or degree of competition among buying elevators, the existence of temporary shortages of wheat locally or in nearby areas, inability of the elevator to handle all the grain offered at a particular time, and other factors, may cause the price paid by the elevator to differ from the terminal market price less transportation charges and elevator margin. Information published by the Joint Commission of Agricultural Inquiry makes this situation clear.²⁷ The Bureau of Railway Economics has also made studies which reveal that the relationship between freight rates and prices at country points is not an exact relationship but that deviations are common.²⁸ The existence of departures from the expected relationship does not prove, as is sometimes alleged, that there is no discoverable relation between the prices at country points and the freight rates to primary markets. It merely proves that there are disturbing factors that obscure the relationship. The divergencies could doubtless be easily explained if all the facts were known.

TYPES OF RATE INCREASES AND THEIR EFFECTS

Two broad conclusions reached earlier in this chapter were (1) that freight charges are a cost of production and enter into the prices of commodities, and (2) that once a price has been established, the ability of an individual producer to sell, and the price he will receive, will depend upon the freight rate which he must pay. With these conclusions in mind the effects of different methods of increasing freight rates may be examined. The analysis is made under the assumption that the goods are produced under competitive conditions.

First, it should be noted that an increase in rates on all commodities is more likely to be shifted to consumers than is an increase on a single commodity. This is because there is no possibility in the former case, of avoiding the increase by turning to the consumption of substitute articles.

If an increase in freight rates on a commodity or group of commodities is a fixed amount per unit of goods shipped, regardless of the length of the haul, the results will be as indicated in the first part of our chapter. The significant thing about this kind of an increase is

²⁷ *Report*, Part III, pp. 502-505.

²⁸ Bureau of Railway Economics, *Commodity Prices in Their Relation to Transportation Costs*. See particularly Bulletins Nos. 1, 7, and 24 (1924-1927).

that it is the same for all producers. The small increase in freight rates authorized by the Interstate Commerce Commission in 1931 was of this sort. An increase of this kind is equivalent to raising the cost curve uniformly, and after a new equilibrium of demand and supply is established, it will be found that the burden of the increase has been passed along to the consumer in varying degrees, depending upon the elasticity of supply and demand for the commodity. If the goods are produced by a number of producers with varying costs of production, the curtailment of demand will eliminate the high-cost producers. Hence some producers will suffer more than others.

If the rate increase is a percentage increase, quite different results will ensue. The rate increase will represent a greater aggregate increase to the shippers who formerly paid the highest rates. The rate increase will be small to the shippers who paid the lowest rates before. Prices will undoubtedly rise, but it is impossible to say by how much. The cost curve is not raised by a definite amount. The cost of putting some portions of the supply on the market is increased more than that of other portions. After an increase of this sort, the relative position of different producers is altered. The long-distance shipper is most adversely affected. The shipper who is close to the market is least affected. In fact, the near producer may benefit from the increase because his distant competitors may be excluded from the market. There is plenty of evidence that the freight rate increases of 1918 and 1920, which were percentage increases, had this effect, and worked great hardships on manufacturers, dealers, and farmers, who had long hauls. In the Fifteen Per Cent Case of 1931 the Commission was besieged with briefs opposing the percentage method of increasing rates, if increases were to be made.

If an advance in freight rates applies from some producing centers and not from others, the results are quite complex and very difficult to predict. If the areas from which the rates are increased furnish a large part of the supply, or if expansion of production is not easily possible elsewhere, it may be that the price in the market will be raised by nearly the whole amount of the rate increase. If so, the producers whose rates were increased will receive nearly as much as they did before, but the producers whose rates were not increased will receive more than they did before, since the central market price has advanced. Thus the producers subjected to the rate increase may be nearly as well off as before in the absolute sense, but worse off in the relative sense.

If the supply from the producing area which was subjected to a rate increase is a small portion of the supply, and if it is in no sense the marginal supply, the rate increase will not affect the price in the central market to any great extent. When this situation occurs, the producers subjected to the rate advance will have to accept less for their product and they will be worse off, in both the absolute and the relative sense.

FREIGHT RATES AND AMERICAN AGRICULTURE

A practical illustration of the last situation is found in the position of agriculture in the United States after World War I. The increases in railroad freight rates which were made after the war put American agricultural products at a disadvantage in the markets of the world as compared with the products from other countries. According to the United States Department of Commerce, increases in railway rates forced the middle-west grain farmer to pay from six to twelve cents more per bushel to reach world markets than before the war.²⁹ Foreign farmers produce closer to ocean ports and had to pay but little, if any, more than pre-war rates for shipments to European markets. The American grain farmer was therefore at a disadvantage as compared with the Argentine farmer, and farmers in other countries who had easier access to the sea.³⁰

This situation has played an important part in the agitation for the completion of the Great Lakes-St. Lawrence Waterway, by which Duluth, Chicago, and other lake ports would be made accessible to ocean-going vessels. The advocates of the waterway argued that the reduced transportation costs would increase the price of grain to the farmer by the amount of the saving in rates. The opponents of the waterway argued that the reduced costs would lower the price of grain in Europe, and the consumer and not the American farmer would benefit.

SELECTED REFERENCES

Freight rates and prices are discussed in W. T. Jackman, *Economics of Transportation* (Chicago, A. W. Shaw Co., 1926), ch. XIV. The general principles governing the incidence of transportation charges are set forth by T. N. Carver in "The Incidence of Costs," 34 *Economic Journal* 576 (1924), and by H. R. Trumbower in "The Incidence of Freight Charges on Agricultural Prod-

²⁹ Gregg, E. S., and Cricher, A. L., *Great Lakes-to-Ocean Waterways*, Bulletin of the Bureau of Foreign and Domestic Commerce, Domestic Commerce Series No. 4 (1927), p. 4.

³⁰ Ritter, Alfred H., *Influence of Transportation Costs on the Wheat Trade of the United States* (Duluth, Great Lakes-Tidewater Association, 1924), p. 17.

ucts," 33 *Journal of Political Economy* 340 (1925). A brief but excellent discussion of who pays the freight is in B. H. Hibbard, *Marketing Agricultural Products* (New York, Appleton, 1921), pp. 54-58; and also in "Effect of Freight Rates on Agricultural Geography," 4 *Journal of Farm Economics* 129, pp. 131-133 (1922). Dr. C. S. Morgan's testimony before the Interstate Commerce Commission reprinted in the pamphlet, *Who Bears the Freight Rate* (New York, Committee on Public Relations of the Eastern Railroads, 1929), is particularly valuable for its discussion of the short-time effect of rate changes. There is a good discussion of the effects of rate changes in M. R. Benedict, *Freight Rates and the South Dakota Farmer*, South Dakota Agricultural Experiment Station, Bulletin 269 (Brookings, 1932), pp. 17-29.

For a discussion of the geography of prices see L. B. Zapoleon, *Geography of Wheat Prices*, U.S. Department of Agriculture, Bulletin No. 594 (1918). For similar studies by Zapoleon, see Bulletin 696, oat prices, and Bulletin 755, corn prices. Grain prices and freight rates are discussed in a great many places but only a few of these need be listed. The general relationship is set forth in J. W. Strowbridge, *Farm and Terminal Market Prices: Wheat, Corn, and Oats, Crop Movement Year 1920-21*, U.S. Department of Agriculture, Bulletin 1083 (1922); Alfred H. Ritter, *World Wheat Markets, Influence of Transportation Costs on the Wheat Trade of the United States* (Duluth, Great Lakes-Tidewater Association, 1924); and by the same author, *Transportation Economics of the Great Lakes-St. Lawrence Ship Channel* (Washington, Great Lakes-St. Lawrence Tidewater Association, 1925), pp. 216-224; Secretary of Agriculture, *Prices of Wheat to Producers in Kansas*, 63d Cong., 3d sess., House Document No. 1271 (1914).

An excellent study of the geography of milk and butterfat prices is included in John M. Cassels, *A Study of Fluid Milk Prices* (Cambridge, Harvard Univ. Press, 1937).

CHAPTER III

FREIGHT RATES AND THE LOCATION OF INDUSTRIES AND MARKET CENTERS

TRANSPORTATION charges have important effects upon the orientation of industries in relation to markets and raw materials. They also influence the size of the market areas and types of farming. In an earlier chapter¹ it was pointed out that low freight rates enable production to be carried on at points having the lowest costs of production. But in order to analyze the influence of freight charges on the location of industries with respect to markets and raw materials it is necessary to assume that costs of production at different points, except as they are affected by transportation charges, are the same. The problem may then be stated as follows: Other things being equal, how will transportation charges affect the location of an industry? The illustrations used in the ensuing pages concern charges of railroad companies, but the principles are applicable to the charges made by any transportation agency. When goods are transported by the owner, in his own motor truck for instance, the same principles will apply, if the broader term "cost of transportation" is used instead of the terms "transportation charges" and "freight rates."

LOCATION OF EXTRACTIVE INDUSTRIES

Extractive industries, like mining, agriculture, and lumbering, can be carried on only where the resources to be exploited are located. Freight rates, however, may determine the extent to which the resources of a particular area are utilized, since freight rates may determine the extent to which profitable markets can be reached.

LOCATION OF MANUFACTURING INDUSTRIES

The location of manufacturing industries is not fixed by Nature.¹ Although the location of raw materials may exert a strong influence on the location of manufacturing industries, there is often sufficient freedom of choice in selecting a location to make freight rates and other factors of very great importance.

In most discussions of the location of manufacturing industries

¹ Ch. I, pp. 5-6.

numerous factors are listed which influence the choice of locations. Among the important factors enumerated are nearness to market, source of raw materials, availability of fuel or power, and labor supply. All but the last of these are partly, if not largely, matters of transportation costs. Except in the case of perishables, nearness to market is nearness in the matter of transportation costs. The same may be said of nearness to raw materials. Availability of a fuel supply or power is also a matter of transportation costs, for power in the form of coal, fuel oil, electrical energy, or natural gas, can be transported, but only at a cost. Since transportation costs are elements in several of the factors enumerated above, it should be possible to isolate their influence from other elements in order to get a clearer understanding of the part they play in the location of industries. In doing this it should be recognized that we are dealing with only one phase of the problem of the location of industries, albeit an important one.

It must also be recognized that the importance of transportation charges will vary in different industries. If transportation costs are a large factor in the cost of production, and large relative to the value of the commodities produced, they may be the controlling factor in the location of the industry. If transport costs are but a small part of the cost of production, and small relative to the value of the commodities produced, they may exercise practically no influence in the selection of locations. The decline in the manufacturing of cotton goods in New England and its rise in the South are often explained by the nearness of the southern mills to the cotton supply. It does not appear, however, that nearness to raw material has been of any appreciable significance in the southward shift of this industry. The southeastern mills save 21 to 34 percent of the freight which New England has to pay on raw cotton, but since the freight is but a small part of the cost of cotton, which in turn is but a small part of the total cost of manufacturing cotton cloth, New England's disadvantage because of higher transportation charges is only from three-tenths to seven-tenths of 1 percent of the total manufacturing costs.² Labor costs have been an important factor in the southward shift of this industry. In some other industry a saving of much less than 21 percent of the freight rates on raw material would exert a controlling influence on the location of the industry.

² Grossman, C. J. R., *The Possibilities of Cotton Manufacturing in Texas*, University of Texas Bulletin, No. 2832 (Austin, 1928), pp. 18-20. See also Burgy, J. H., *The New England Cotton Textile Industry* (Baltimore, 1933), pp. 121-126.

The general principle governing the location of manufacturing industries, in so far as transportation costs are concerned, can be stated simply. An industry will tend to locate where the aggregate transportation charges are the least. This may be at the source of supply of some important raw material; it may be at the market for the finished product; it may be at the source of fuel supply; or, it may be at some intermediate point.

RELATIVE IMPORTANCE OF MARKET AND OF RAW MATERIAL

It will be helpful to ignore fuel supply for the moment and to consider the source of raw materials and the consuming market as they affect the location of the industry. Whether the industry will be drawn toward the raw materials or toward the market for the finished products will depend upon the relative cost of transporting the raw materials and the finished goods. The total cost of transporting the raw materials is the product of the rate on the raw materials and the weight which must be transported. Likewise, the total cost of transporting the finished goods is the product of the rate on the goods and their weight. It follows that whether the industry locates close to the market or close to the raw material depends upon two factors: (1) the relation of the rate on the raw materials to the rate on the finished product; and (2), the loss of weight that results from the manufacturing process.

WEIGHT-LOSING MATERIALS

Other things being equal, industries may be expected to locate near the source of raw materials which shrink in weight in the process of manufacture. This explains, in part, why sawmills penetrate into the wilderness, and wood-using industries are commonly located near the supplies of growing timber. The migration of the tanning industry from New England to Pennsylvania and the central western States, beginning about 1800, may be explained in the same way. The industry, dependent upon a supply of oak and hemlock bark for the tannin used in the tanning process, migrated from one locality to another as the supplies of bark were exhausted.³ The bark was a weight-losing raw material and it did not pay to transport it long distances. In later years the industry was freed from the ties which bound it to the forested areas by leeching the tannin from the bark and shipping the tannin extracts.

³ Hall, Frederick S., "The Localization of Industries," *Twelfth Census of the United States, Manufacturing* (1902), Part I, p. cciii.

The manufacture of newsprint paper has been carried on in proximity to the forests of northern United States and Canada from which a supply of pulpwood is obtainable. The loss of weight in the manufacture of newsprint has kept the industry close to the supplies of pulpwood.⁴ Other branches of the paper industry are likewise found close to supplies of suitable wood. The smelting of ores tends to be near the sources of the ore, or else the ore is concentrated near the mines before shipment. In the smelting of copper ore, for instance, from 95 to 99 percent of the weight of the ore is eliminated. Loss of weight in the manufacturing process is also a factor in the location of canning factories, and in the preparation of dried fruits, canned fruit juice, and frozen fruit juice, although the perishable nature of many of the fruits and vegetables subjected to these processes is an additional factor tending to draw the industry to the sources of raw materials.

The fact that industries using weight-losing materials tend to develop near the supply of raw material has led some writers to the conclusion that if raw materials are heavy and bulky the industries will be found at the sources of supply. This, it appears, is an error.⁵ If the finished product is as heavy or bulky as the raw material, one may be transported as cheaply as the other, freight rates being the same. It is the loss of weight in the manufacturing process that gives advantage to the concern located near the raw material supplies. As Weber, a prime authority on the subject, says: "Pure materials (that is, those that impart their total weight to the product) can never bind production to their deposits."⁶

RELATION OF RATES ON RAW MATERIAL AND FINISHED PRODUCTS

The relation of the rates on raw material and finished products also affects the location of industries. If the rates on raw materials are higher than on the finished product, there will be an advantage in locating near the raw materials. If the rates on finished products are higher than on the raw materials, there will be an advantage in locating near the centers of consumption, unless this advantage is offset by loss of weight in the manufacturing process. It should be remarked, in pass-

⁴ Guthrie, John A., *The Newsprint Paper Industry* (Cambridge, Harvard Univ. Press, 1940), p. 180.

⁵ Kryzanowski, Witold, "Review of the Literature of the Location of Industries," 35 *Journal of Political Economy* 278 (1927).

⁶ Friederich, C. J., *Alfred Weber's Theory of Location of Industries* (Chicago, University of Chicago Press, 1929), p. 61.

ing, that normally the rates on raw materials are lower than on the finished product.

Attempts to develop manufacturing in Colorado in the eighties and nineties were sometimes confronted with difficulties due to higher rates on raw materials. A manufacturer of carriages found that the rates on everything from the East that went into the manufacture of carriages were higher than on carriages themselves, and he could not compete with the eastern manufacturers.⁷ Mattress manufacturers found themselves faced with a similar handicap.⁸ The concentration of the agricultural implement and machinery manufacture in Illinois and neighboring States is due to the higher freight rates on the manufactured articles than on the raw materials. Owing to their bulk these articles have always been charged relatively high rates, and the industry therefore tended to develop in regions most accessible to the farming sections of the country.⁹ For a similar reason tin cans are produced in close proximity to canning regions, rather than close to centers of iron and steel production where tin plate is produced.¹⁰ Paper boxes likewise are ordinarily manufactured close to the market for the product, unless they are in collapsible form.¹¹

The relation between rates on raw materials and finished products is often involved in rate complaints brought before the Interstate Commerce Commission. In one instance a manufacturer of malt at Minneapolis complained because the rate on malt was higher than on barley. He was competing with plants located at Los Angeles and San Francisco for business on the Pacific Coast. The Minneapolis manufacturer was unable to sell malt on the Pacific Coast in competition with the California producers although the California malt manufacturers bought their barley in Minneapolis. The rate relationship favored the California manufacturer.¹² Similar controversies have raged over the relationship between the rates on flour and wheat. The conflict of interest between millers located near the wheat fields and those located near the consuming centers has resulted in a general equalization of rates on wheat

⁷ Phillips, John B., *Freight Rates and Manufacturers in Colorado* (Boulder, 1909), pp. 30-31.

⁸ *Ibid.*, p. 59.

⁹ Hall, *op. cit.*, p. cxcii; McCarty, H. H., *Industrial Migration in the United States*, Iowa Studies in Business No. VII (Iowa City, 1930), p. 49.

¹⁰ Goodrich, Carter, *Migration and Economic Opportunity* (Philadelphia, Univ. of Pennsylvania Press, 1936), p. 351.

¹¹ *Ibid.*, p. 360.

¹² *Electric Maltng Co. v. Atchinson, Topeka & Santa Fe Ry. Co.*, 23 I.C.C. 378 (1912).

and flour. Throughout most of the United States the flour rates have been the same as the wheat rates. This has been done in disregard of the fact that the cost of transporting flour is probably 25 percent greater than the cost of transporting wheat.¹³ It is argued that the mills established in the grain-growing country could not continue in existence if higher rates were imposed on flour. It might appear that even with higher rates on flour the western millers would have an advantage over the eastern millers since it takes 270 pounds of wheat to manufacture 196 pounds of flour. Wheat, in other words, is a weight-losing material with reference to flour. The percentage of actual waste, however, is very small. The difference between the weight of wheat and the weight of flour is largely represented by bran, shorts, and middlings. In so far as the by-products of flour milling are not consumed in the same areas that provide a market for flour, the by-products market would affect the location of the industry, tending to pull the industry towards the by-products market.

The relationship between rates on wheat and flour has at times determined whether flour to be consumed in Europe should be milled in the United States or abroad. In 1890 the railways leading to the Gulf ports published lower rates on wheat for export than on flour, and made it impossible for middle-western millers to manufacture flour for export, but the export of wheat was encouraged.¹⁴ In 1909 certain milling interests in the country sought lower rates on export flour than on wheat in order to encourage milling in this country for export.¹⁵

The relationship between rates on livestock and on meat has been an important factor in the struggle between rival centers of the packing industry. When the slaughtering business was carried on in the East the railroads maintained a rate on livestock about one-third the rate charged for beef. Chicago packers objected, demanding a lower rate on finished products in order to enable them to sell their product in the East in competition with eastern packers. Later the Chicago packers were found on the other side of the controversy, for when packing establishments sprang up farther west the Chicago packers needed low rates on livestock to enable them to compete with the newer establishments nearer the cattle ranges, while high rates on meat were a greater

¹³ Eastman, J. B., Concurring Opinion in *Rate Structure Investigation*, No. 17,000, Part VII, *Grain and Grain Products*, 164 I.C.C. 706, 710 (1930).

¹⁴ Ripley, W. Z., *Railroads: Rates and Regulation* (New York, Longmans, 1912), pp. 136-138.

¹⁵ *Bulte Milling Co. v. Chicago & Alton R. R. Co.*, 15 I.C.C. 351.

disadvantage to the western packers than to the Chicago producers.¹⁶ Controversy over the spread between livestock rates and those on packing-house products has frequently been before the Commission, with the inevitable conflict between producers located near the supply of livestock and those located close to the markets for packing-house products.¹⁷

INFLUENCE OF UBIQUITOUS MATERIALS

There are many materials used in manufacturing that are not localized in certain spots, but are available nearly everywhere throughout large areas of the country, at least in sufficient quantities to meet the needs of local industries. Weber calls these materials "ubiquities." Brick-clay is available in so many places as to be nearly ubiquitous. Wood and lumber are ubiquities over large expanses of territory. Corn or wheat is available over large portions of the United States, and in those regions, therefore, they are ubiquities.

It might seem that if a raw material is ubiquitous over a large area it could not affect the location of the industry within the region where it is found. These materials, however, enter into the manufactured product and hence increase the weight to be transported. The effect of ubiquities, then, is to pull the industry toward the place of consumption. The total transportation costs will be greater for the establishment which has to ship the finished product a considerable distance. The tendency will be to combine the ubiquity with the other raw materials near the place of consumption.

The manufacture of soft drinks is an industry that tends to be located near its markets because one of the principal ingredients is water; and water can be obtained nearly everywhere. Brand names are important enough in this industry, however, to enable well-known brands to command a premium price that will permit them to be shipped considerable distances and to compete with the locally bottled product.

The bulk of the commercial fertilizer produced in the United States is manufactured in the South. The South is also the principal market for the product. In making commercial fertilizer a considerable amount of sand or other filler is commonly combined with the more

¹⁶ Ripley, *op. cit.*, pp. 139-142.

¹⁷ E.g., *Eastern Live Stock Cases of 1926*, 144 I.C.C. 731 (1928); *Ogden Packing & Provision Co. v. Denver & Rio Grande R. R. Co.*, 101 I.C.C. 258 (1925); 151 I.C.C. 33 (1929); *Westbound Rates on Meats*, 210 I.C.C. 13 (1935).

concentrated ingredients. This circumstance favors manufacture in the consuming areas.

INFLUENCE OF MARKETS

Nearness to markets is often considered the most important factor in the location of industries. Its importance has been increased by the tendency to make freight rates higher on finished products than on the raw materials from which they are made. For some industries nearness to market is so important that the goods are always produced at the markets and are rarely transported for any great distance. Ice cream manufacture, baking, and job printing are local industries of this sort. Some industries are not local, but are regional in nature, with plants scattered over the country, each of which supplies a substantial area. The cement industry is an illustration.

The location of highly centralized industries is often influenced by the location of markets. The westward movement of the center of manufacturing in the United States has been due in part to this factor. For many decades the center of population constantly moved westward. The center of manufacturing followed, never more than a few hundred miles to the east and north of the center of population. The rise of St. Louis as a shoe center is to be explained partly by the proximity to middle-west consumers. The New England shoe manufacturer, with a long haul on the finished product, is at a disadvantage in the western market. Higher freight rates after World War I, by increasing the spread between rates on raw materials and finished products, have made nearness to markets a matter of increasing importance. This has been a force working toward decentralization of manufacturing.

FUEL

It has already been noted that availability of fuel is one factor that affects the location of industries. Theoretically, fuel can be considered as an extreme example of a weight-losing raw material. It is a raw material which does not enter into the weight of the product. According to the principle we have described, the influence of fuel should be to pull strongly toward its source of supply. For many industries, however, the fuel requirements are so small that this influence is outweighed by other factors. For other industries, this factor exerts a controlling influence on location.

Illustrations of the influence of fuel on the location of industry are abundant. Proximity to a fuel supply has always been an important

factor in the location of the iron and steel industry. Absence of a fuel supply partly explains why there is so little manufacturing in the Dakotas, Kansas, and western Texas. The development of cotton mills in the towns of southern New England rather than in other parts of New England seems to have been due to the cheaper coal available at tidewater. As far as rates on cotton and cotton goods were concerned, southern New England had no advantage over the rest of New England. The "in rates" on cotton and the "out rates" on cotton goods were the same at all points in New England.¹⁸ Fuel is such an important item in the cost of manufacturing glass that the industry has thrived chiefly in the regions where natural gas was available.¹⁹

EFFECT OF FREIGHT-RATE STRUCTURE

The peculiarities of the freight-rate structure exert a profound influence on the location of industries. If certain towns are granted special rates lower than are granted to other towns, they become important centers. Manufacturers in the other towns may succumb to the competition of their more fortunately located rivals. The practice of grouping points of origin or destination, which gives all towns within the group the same rates, equalizes the advantage of all towns in the group. The blanketing of rates to and from all points in New England when the points of origin or destination were in the West has long had a decentralizing effect on industry in New England. Manufacturing establishments are scattered throughout that section of the country, often in very small communities.²⁰

MIGRATION OF INDUSTRIES

Forces are constantly at work to alter the relative advantages of particular locations. An industrial establishment, though located most advantageously when started, may find conditions have changed and that it cannot compete with another establishment located elsewhere. The decline of an industry in a locality may be absolute or relative. If relative, the old industry continues to exist without a declining production, but new establishments are developing elsewhere, so that the old locality becomes less important in the industry as a whole. If the

¹⁸ Copeland, M. T., *The Cotton Manufacturing Industry in the United States* (Cambridge, Harvard Univ. Press, 1912) pp. 29-30.

¹⁹ Hall, *op. cit.*, p. cxcvii.

²⁰ Jones, Eliot, *Principles of Railway Transportation* (New York, Macmillan, 1924), p. 157.

decline is absolute, production falls off in the old locality, or ceases altogether, leaving deserted factories, tumble-down homes, and nearly deserted communities. "A tornado," says one writer, "can hardly vie with the forces of competition in power to level and destroy."²¹ These shifts in industrial location are brought about by many causes: depletion of natural resources, the discovery of new resources, new processes, changes in population and markets, changes in freight rates, and doubtless many others.

Changes in freight rates have played a part in some of the recent trends in industrial location in the United States. Higher freight rates following World War I had a tendency to place the older industrial centers in the East, particularly those in New England, at a greater disadvantage in competing with manufacturers located in the Middle West. But if some industries have moved from the East to the Middle West, there are others which have moved from the Middle West to the Atlantic seaboard. Low water rates from the Atlantic seaboard to the Pacific Coast via the Panama Canal, while railroad rates from the interior to the Pacific Coast have increased, have given the seaboard cities an advantage in trade with the Pacific Coast. This situation has caused much concern to the Middle West.²² Another change brought about by increased freight rates has been the rise of Buffalo as a milling center and the decline of Minneapolis. Minneapolis must pay high rail rates on its flour, while Buffalo enjoys a low water rate on wheat and has a shorter rail haul on flour. The result is to give Buffalo an advantage over Minneapolis.²³

RATE POLICIES OF THE RAILROADS

The railroads, by their power to make and adjust rates, can alter the location of industries. They can maintain industries in unfavorable locations, and they can prevent their establishment at more favored places. This power is limited by the legal requirements that rates must be just and reasonable, not unjustly discriminatory, nor unduly preferential or prejudicial, but even so, the location of industries is profoundly affected by the rate policies of the carriers. In 1878 an agreement was

²¹ Ross, E. A., "The Location of Industries," 10 *Quarterly Journal of Economics* 247 (1896), p. 267.

²² See Crumbaker, C., "The Panama Canal and the West," 2 *Journal of Business* 151 (1929); *Commodity Rates to Pacific Coast Terminals*, 107 I.C.C. 421 (1926), pp. 427-429; and the dissenting opinion of Commissioner Esch in the same case, pp. 448-449.

²³ McCarty, *op. cit.*, p. 35.

made between the railroads to charge higher rates from the Middle West to the South than from the East to the South on certain articles manufactured in the East, while maintaining higher rates from the East to the South on certain western products.²⁴ This arrangement was designed to protect the traffic peculiar to each region, and would, of course, have a tendency to retard changes in industrial location.

Railroads are usually interested in stimulating industries along their own lines. Low rates from distant producing points, to enable remote producers to sell goods in a given locality in competition with nearby producers, are to be found by the thousands. This phenomenon, known as "market competition," permeates the rate structure of the country. From New England to points west rates have for many years been the same as the rates from New York in order to enable New England industries to compete with those in the industrial area about New York.²⁵ When the manufacture of cotton goods developed in the South, the carriers serving the southern mills found it necessary to lower the rates on cotton piece goods in order to enable the southern mills to sell in Chicago and adjoining territory in competition with New England mills.²⁶ Relatively low rates on coal from the southern coal fields to Lake Erie ports account in part for the shift in coal production from the Pennsylvania and Ohio fields to the southern fields.²⁷

TRANSIT PRIVILEGES

One of the most widely used devices to equalize the advantages of competing industrial locations is the granting of in-transit privileges, of which the milling-in-transit privilege is perhaps the best known. Under this privilege grain may be shipped from a grain market or a country point to a milling point, ground into flour, and shipped to market at the through rate applicable from the point where the grain originated to the final destination of the finished product. Usually the local rate on grain is paid to the milling point, and when the flour or other product moves out, it goes at "the balance of the through rate," that is, the difference between the rate on grain from point of origin to the final destination and what was paid when the grain was shipped into

²⁴ *Freight Bureau v. Cincinnati, New Orleans & Texas Pacific R. R. Co.*, 6 I.C.C. 195, 216, 241-246 (1894).

²⁵ Jones, *op. cit.*, p. 157.

²⁶ *Smith Bros. Manufacturing Co. v. Aberdeen & Rockfish Railroad Co.*, 181 I.C.C. 137, 139 (1931).

²⁷ Locklin, D. P., *Railroad Regulation Since 1920* (New York, McGraw-Hill, 1928), pp. 188-198.

the milling point. Often this "balance of the through rate" is zero, and has been known to be a minus quantity. By means of the milling-in-transit arrangement the through rate displaces the combination of rates into and out of the milling point. Since a through rate is normally less than the sum of intermediate rates, the milling-in-transit privilege places upon an equality all points which lie between the point of origin of the grain and the final consuming point. Were this privilege not granted, the millers located at the grain markets, at consuming centers, or at so-called "rate-breaking points" would have an advantage over others. Those at the grain markets would get a through rate on flour. Those at the consuming points would get a through rate on wheat. Those at the rate-breaking points would pay a combination rate into the milling point and out, but the through rates are usually the combination into and out of the rate-breaking point. All other millers would find the combination of rates into their milling points plus the rates from there to destination to be in excess of the through rate. The milling-in-transit privilege is thus a device to equalize the sum of the in and out rates at such points as are granted the transit privileges. The granting of this privilege accounts for the multitude of milling points scattered throughout the country.²⁸

Similar in-transit arrangements are granted on many other commodities, and with a similar purpose in mind. The fabrication-in-transit arrangement on steel was established in 1908 and 1909 at Toledo and Canton, Ohio, thereby substituting the through rate on steel from Pittsburgh for the Toledo combination. This enabled Toledo fabricating plants to compete with plants in the Pittsburgh district.²⁹

LOCATION OF MARKET CENTERS

The general principle governing the location of market centers is identical with that governing the location of manufacturing establishments. In fact, rate relationships play a more important part in the location of market centers than in the location of industries, because other factors, such as labor costs, are comparatively unimportant to commercial enterprises. In general, goods will be bought and sold through markets established at points having the lowest combination of rates. This probably explains why the important primary grain markets are at rate-breaking points like Chicago, St. Louis, and Minne-

²⁸ Vanderblue, H. B. and Burgess, K. F., *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), pp. 136-137.

²⁹ *Ibid.*, p. 136.

apolis. In many respects the location of market centers involves fewer complicated rate relationships than those found to affect industrial establishments. The same commodities are shipped in as out; hence there is no such thing as a relationship between the rates on raw materials and finished products. There is no loss of weight since no manufacturing processes are involved,³⁰ hence the situation is not complicated by the influence of weight-losing materials. Lastly, fuel supply is not of any importance.

CARLOAD AND LESS-THAN-CARLOAD RATES

There is one rate relationship that is of considerable importance in determining the location of jobbing centers. This is the relation between rates on small and large shipments. Jobbers, as a rule, buy in large lots and sell in smaller lots. If the rate per hundred pounds on carload lots is less than the rate per hundred pounds on less-than-carload lots, the jobber located near the consumer is favored. If no such distinction is made and "any-quantity" rates prevail, that is, rates are the same per hundred pounds regardless of the quantity shipped, the distant and local jobbers are upon an equality. When most of the manufacturing was carried on in the East, the maintenance of any-quantity rates enabled the eastern jobbers to sell direct to western retailers. The western jobbers favored the establishment of low carload rates since such rates would enable them to compete with the eastern jobbers who had to ship in less-than-carload quantities from the East.³¹

The conflict of interest between the two sets of jobbers is not ended with the adoption of lower rates on carload lots. The controversy then becomes one of the proper spread between the carload and less-than-carload rates. The greater the spread, the greater is the advantage of the jobber located near the consumer. This dispute was once a bone of contention between the Pacific Coast jobbers and those located east of the Missouri River.³² The wide spread between carload and less-than-carload rates excluded eastern jobbers from business on the Pacific Coast.

MARKET AREAS

Once the market centers are established, rivalry between them takes the form of a struggle to sell (or buy) over the widest possible area. Manufacturers and producers of raw materials are also interested in the

³⁰ At grain markets there may be a small loss of weight due to the cleaning of the grain.

³¹ Ripley, *op. cit.*, pp. 325-328.

³² *Business Men's League of St. Louis v. Atchison, Topeka & Santa Fe Ry. Co.*, 9 I.C.C. 318 (1902).

area in which they are able to sell goods in competition with producers located elsewhere. We are therefore interested in the laws determining the size of market areas. Freight rates play an important part in determining the size of these areas.

In visualizing the conditions to be described, two kinds of markets should be distinguished. Selling markets are those from which goods are sold or distributed to scattered buyers. These have been called centrifugal markets, since the movement is from a center outward. Buying markets are those which collect goods produced in outlying areas.

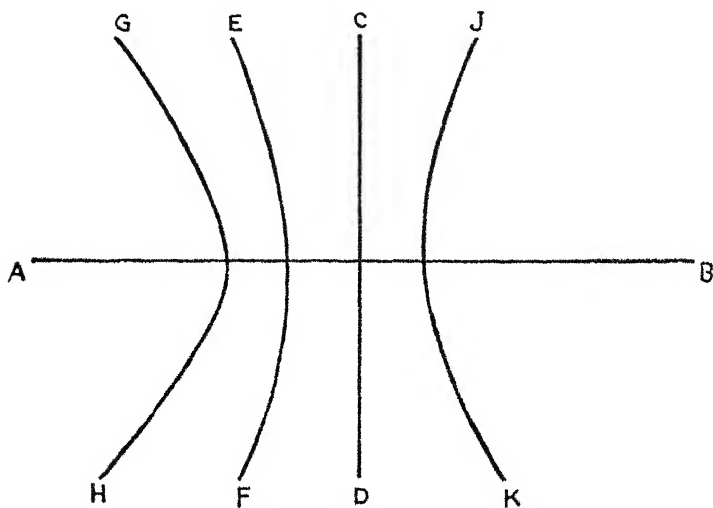


FIG. 10.—Market Areas.

These have been called centripetal markets, since the goods are drawn inward toward a center. A jobbing center or a manufacturing center is a selling market. The primary grain markets are buying markets.

The law governing market areas is illustrated by the diagram in Fig. 10.³³

SELLING MARKETS

Assume two markets, A and B. These may be considered as selling markets—markets in which goods of a certain kind are manufactured

³³ More elaborate discussions of the theory of market areas may be found in Fetter, Frank A., "The Economic Law of Market Areas," 38 *Quarterly Journal of Economics* 520 (1924); and, by the same author, *The Masquerade of Monopoly* (New York, Harcourt Brace & Co., 1931), ch. XX; and also Black, John D., *Introduction to Production Economics* (New York, Holt, 1926), pp. 923-926. See also Cassels, J. M., *A Study of Fluid Milk Prices* (Cambridge, Harvard Univ. Press, 1937), chs. III and IV, and Hoover, E. M., Jr., *Location Theory and the Shoe and Leather Industries* (Cambridge, Harvard Univ. Press, 1937), particularly chs. II, III, and V.

and sold in the surrounding territory. The division of the territory between the rival producers will depend upon two factors: the factory prices of the goods at A and B respectively (the base prices), and the transportation rates from A and from B. If the base prices are the same, and if freight rates increase with distance and are on the same mileage basis from both A and B, the territory between A and B will be divided equally between the two markets. The line CD will mark the boundary between them. Points on this line can be supplied at the same delivered cost from both A and B. If the freight rates from A toward B are on a higher basis, mile for mile, than from B toward A, the market area of A will be restricted and that of B enlarged. The line of indifference, EF in the diagram, tends to curve about the point having the smaller market. The delivered price from B will be lower than from A in the area between B and the line EF. The area supplied by A would be still smaller if the difference in rates were greater.

If we return to our assumption that freight rates are the same from A and from B for equal distances, but assume that the base prices are different in the two markets, the market with the lower base price will supply the larger area. If the goods are manufactured at A and B, and the cost of production is less at A than at B, then A can quote a lower base price than B, and B's market area is restricted. If the difference in base prices is greater than the rate between A and B, B would be eliminated as a competitor. The producer at B could not sell in his own community for less than A can produce the commodity and transport it to B.

It was pointed out above that the line of indifference which marks the boundary between two market areas tends to curve about the market having the smaller area. This is demonstrated in Fig. 11. A and B are the rival markets. If the base price in B is higher than in A, B's market is smaller than A's. Each concentric circle gives the base price plus transportation costs to points at a given distance from the market. On the line CD the prices are the same on goods from both A and B. Notice that each additional concentric circle about A encroaches further on the territory that might seem to be naturally tributary to B. If it is assumed that the rates increase two cents for each five miles, the distance between any two circles in Fig. 11 would be five miles. The lower base price in A enables A to sell at points which are 25 miles further from A than they are from B. Points on the line CD are all 25 miles further from A than they are from B. Points at the left of CD are less

than 25 miles further from A than from B and hence in A's territory; points at the right of the line CD are more than 25 miles further from A than from B and hence cannot be reached by A at as low a delivered price as they can be reached by B.

Thus far we have assumed that the points of indifference which mark the boundary between the two market areas would be represented

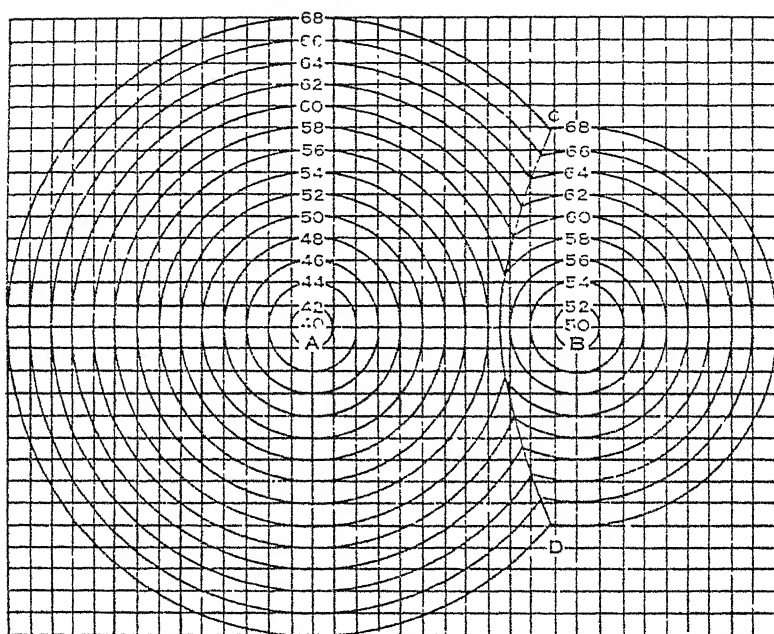


FIG. 11.—Unequal Market Areas.

by a line. As a matter of fact, there are often considerable areas which may be supplied from different markets, and the boundary is not a line but a broad zone. This situation will usually be found to arise from one or more of the following conditions.

First, if the margin of profit to the producers is large, they may cut their prices, or absorb part of the freight charges, where it is necessary to do so to make sales. This means that the producers or dealers will sell in each others' territory near the theoretical line of demarcation between their respective territories.

Second, even greater absorptions in the freight will be made if the commodity is one which is produced under conditions which give rise to large overhead costs, particularly if there is unused capacity in the

plants. Under these conditions the producers may consider it better to cut prices below average costs of production, that is for that portion of the supply sold in a competitor's market. This will be considered as an extra output, produced at a low additional cost, which need not contribute its share toward the constant or overhead expenses. Anything that the product will bring, over and above the extra expense incurred in producing it, will be considered as profit. This practice is identical with the practice of "dumping" in foreign trade. It is a form of price cutting, apt to be dangerous to the producer, since his competitors can invade his market in retaliation as easily as he can invade theirs.

Steel producers have long been selling steel in each others' markets on a delivered price basis, which is equivalent to cutting the factory price for distant customers and exacting high prices from nearby customers. Normal market areas may be completely broken down in this manner.³⁴

A third situation which leads to breaking down the division between market areas is the equalization of freight rates from the different markets to a common destination under the force of "market competition." Railroads might lower the rates in Fig. 10 from A to points in B's territory in order to enable the producers at A to sell in that territory. Similarly the rates might be reduced from B to points in A's territory. This might even result in rates which, after a given point, decrease as distance increases. That is, the rates from A might increase with distance to points on the line CD, and then decline as B is approached. Similarly the rates from B might increase until the line CD is reached and decline beyond.

A fourth reason for blurring the division between market areas is the practice of grouping destination points instead of adhering to a strictly distance scale of rates. This might result in a broad band or area in which both A and B could sell on equal terms.

It has been pointed out that the market area depends upon both freight rates and base prices. Market competition, in its simple forms, seeks to equalize the rates from rival producing areas to given consuming points. Illustrations are not wanting, however, of attempts to offset higher base prices at one center with lower rates than prevail from a rival center. Conversely, the points with low base prices may be penalized by higher rates to offset their natural advantages. A case in point

³⁴ For illustrations of wasteful cross-hauling resulting from this practice, see Fetter, *The Masquerade of Monopoly*, particularly maps facing pages 310 and 329.

is afforded by the famous Eau Claire Lumber Case. Eau Claire, Winona, and La Crosse were rival lumber towns in Wisconsin and Minnesota. After some disagreement among the carriers concerning the rates from these rival towns to Missouri River points, the dispute was submitted to an arbitrator for decision. Under the resulting "Bogue award" in 1884, lower costs of producing lumber at Eau Claire were offset by higher rates in order that Eau Claire would not dominate the market at the Missouri River points and each town might have a share of the business. The differential in favor of Winona and La Crosse was $5\frac{1}{2}$ cents per hundred pounds.³⁵

The illustration on page 57 assumed that rival manufacturers were located at A and B respectively, and were selling their product in the surrounding territory. The same principles would apply if A and B were rival jobbing centers, drawing their supplies of goods from a common point of origin. But in the latter case, the base prices at A and B would not be determined by manufacturing costs but by inbound freight rates. If the "in-rates" to A were greater than to B, and the "out-rates" were the same for equal distances, A's market would be reduced in area and B's would be enlarged. In the jobbing business, therefore, the "in-and-out" rate adjustments will determine the area tributary to a given market.

Controversies over in-and-out rates at important jobbing centers often come before the Interstate Commerce Commission.³⁶ "The question of rates to and from jobbing points has been and is continuously being pressed upon our attention by complaining shippers," said a report of the Commission. "The desire of jobbers located at various points is to have rates into and out of their particular points equalized, so that through rates to consuming territories shall be the same, no matter through which point the traffic moves."³⁷

The adjustment of rates to and from the so-called Colorado Common Points affords an illustration of such equalization. The Common Points—Denver, Colorado Springs, Pueblo, Walsenburg, and Trinidad—had the same inbound rates from all eastern points, hence the term "Common Points." The in-rates were therefore equal. The out-rates

³⁵ *Eau Claire Board of Trade v. Chicago, Milwaukee & St. Paul Ry. Co.*, 4 I.C.R. 65 (1892).

³⁶ For example, *Mobridge Grocery Co. v. Chicago, Milwaukee & St. Paul Ry. Co.*, 52 I.C.C. 307 (1919).

³⁷ *Wichita Wholesale Furniture Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 44 I.C.C. 339, 343 (1917).

were so adjusted that each town had a small distributing territory tributary to it, but after a certain distance was reached the out-rates were equalized from all the Common Points.³⁸ The old Texas intrastate rate structure was built in a somewhat similar manner. Rates increased with distance up to certain limits—245 miles on first-class traffic. Beyond these limits the rates in eastern Texas were the same regardless of distance. The result was to give many jobbing centers a small area which was their own, but outside this territory all jobbing centers were upon an equality.³⁹

The famous Shreveport Cases illustrate the tendency to offset high in-rates by low out-rates in order to enlarge the market area of towns unfavorably situated.⁴⁰ Dallas and Houston were two jobbing centers in Texas. Shreveport, Louisiana, was a rival jobbing town not far from the Texas boundary. Shreveport enjoyed lower rates on manufactured goods from the north and east. To overcome the disadvantage of Dallas and Houston, the Texas Commission had prescribed a scale of intrastate rates in Texas which were lower than the interstate scale from Shreveport into Texas. These lower intrastate rates were later found discriminatory against Shreveport and were brought up to the level of the interstate rates.

BUYING MARKETS

Similar principles apply if A and B are buying markets. Shippers will send goods to the market which will net them the greatest return. This will depend upon the prices obtainable in the two markets and the freight rates to them. The market with the higher price or with the lower rate will draw from the larger area.⁴¹ If A and B are purchasing a product for which there is a central market, as in the case of grain, the price in A and B will correspond to the price in the central market less transportation and other costs. Here the in-and-out rate adjustments again become important. The flow of grain in the United States affords a good illustration of these principles. Whether Kansas grain, for instance, moves south to the Gulf for export, or north and east to important interior markets, will depend upon the freight-rate adjustment and the prices of grain in the various markets. But we have learned

³⁸ *Pueblo Commerce Club v. Denver & Rio Grande R. R. Co.*, 31 I.C.C. 133 (1924).

³⁹ Ripley, *op. cit.*, p. 394.

⁴⁰ 23 I.C.C. 31 (1912).

⁴¹ For a factual study of a particular market area see Duddy, E. A., "The Potential Supply Area of the Chicago Livestock Market," 13 *Journal of Farm Economics* 410 (1931).

that when we are on an export basis the prices in the various markets tend to be the Liverpool price minus the transportation and other costs incurred in handling the grain. Normally the grain from northern Kansas moves northward and eastward to interior centers, while that from southern Kansas moves to the Gulf.¹² Slight changes in prices in the various markets or changes in freight rates may change the direction of grain flow.

Very delicate rate adjustments on export grain determine through which port the grain shall move. The establishment of the "port differentials" was based on the rivalry of the various ports for the export grain business. Originally these differentials were made in order to equalize the in-rates to the various ports and the out-rates, or the ocean rates from the port to European ports.¹³ On grain for export the domestic rate to Baltimore was the key rate. In 1919 the export rate to Philadelphia was made by adding one-half cent per hundred pounds to the Baltimore rate. Rates to New York and Boston were made by adding 1½ cents to the Baltimore rate.¹⁴ From any important grain market grain could be shipped to Liverpool via a number of ports with but small differences in the total cost.

In the movement of grain to the primary markets from the grain-growing areas of the United States, the important markets, except in unusual cases, draw no grain from areas east of the market. Chicago draws grain mostly from Illinois and Iowa, with some from Minnesota and South Dakota. It derives none from Ohio, Michigan, or Indiana, to the east, or from Missouri to the south. Minneapolis receipts are from Minnesota, the Dakotas, and some from Montana, all to the west. Duluth receipts come from the same area. The Kansas City supply comes largely from Kansas to the west, from Nebraska to the northwest, and from Iowa to the north.¹⁵ This phenomenon is easy to explain in terms of our study of the law of market areas. The general movement of grain is from west to east, except in the areas which ship grain to the Pacific Coast. From a given point within the broad area that ships

¹² *Prices of Wheat to Producers in Kansas*, 63d Cong., 3d sess., House Document No. 1271 (1914), p. 4.

¹³ U.S. Tariff Commission, *Preferential Transportation Rates and Their Relation to Import and Export Traffic of the United States* (1922), p. 35.

¹⁴ *Ibid.*, p. 129.

¹⁵ For further details see Federal Trade Commission, *Report on the Grain Trade*, vol. 1 (1920), pp. 132-144. The same situation is indicated in the *Report of the Industrial Commission*, vol. VI (1901), map facing p. 47.

grain to the east, the sum of the in-and-out rates through a market lying to the west would be greater than through a market lying to the east.

FREIGHT RATES AND AGRICULTURAL PRODUCTION

It has been shown that manufacturing industries tend to be located where aggregate transportation charges will be the least.⁴⁶ The same rule governs the location of the jobbing business and other market centers. Does a similar rule operate in the case of agricultural production? In order to answer this question, two types of agricultural products, garden truck and wheat, may be considered.

It is a commonplace observation that truck gardens are located close to the centers of population, and that nearness to market is such an important matter that very high rentals are paid for land suitable for such uses. Nearness to market is an advantage because of the bulkiness and perishability of the product. Of course large quantities of vegetables and fruits are shipped long distances to city markets. Much of this long-distance shipment, however, is seasonal in nature. Fresh fruits and vegetables are sent to northern markets long before a local crop can be produced. It must also be recognized that factors other than transportation costs affect types of agriculture. If certain vegetables can be grown in certain areas more cheaply than near the markets, they will be grown in the advantageous locations and shipped long distances, transportation charges permitting. This is a simple case of geographical division of labor. But in this chapter the effects of transportation charges alone are under consideration, and it is clear that the prevalence of truck gardening in regions close to large cities on high-priced land is to be explained by the savings in freight charges and other advantages of proximity to market. Unless some unusual advantage attaches to a distant location, garden truck can be grown most profitably close to the market. There would seem to be, here, an approximation to the general rule that the commodity will be produced where transportation costs, including loss from deterioration, are least.

Wheat, on the other hand, is grown in remote corners of the earth, thousands of miles from consuming markets, and the aggregate transportation charge is large. The location of wheat production is not near the markets where a saving in freight rates would be possible. Wheat

⁴⁶ If we disregard nontransportation factors that may affect location.

production, therefore, does not conform to the rule that production will be carried on where transportation costs are least.

Between these two rather extreme examples are many other agricultural products produced at varying distances from markets. Milk is produced farther away from markets than garden truck, but not so far away as butter and cheese, and beef. But it is already apparent why all agricultural products and livestock cannot be produced near consuming areas. There isn't room enough. Agricultural production, unlike manufacturing industries, requires extensive areas of land; and if land is used for one purpose it cannot be used for another. For some crops, nearness to market is extremely important. For others it is less important. Producers of the former class of crops will bid higher for the use of the land close to market areas than can the producers of crops for which nearness to market is less important. The crops for which nearness is less essential are therefore forced to occupy areas remoter from the markets.⁴⁷ The migration of the wheat belt in the United States is a good illustration of this principle. Wheat raising has always been pushed to the newer and less populated areas. It has been driven from New England and western New York to the far West. As population advances, the more profitable uses for the land crowd out the wheat.⁴⁸

The principle governing the relation between transportation costs and agricultural production may now be stated. Commodities which cannot stand long-distance transportation, because of bulkiness or perishability, will be produced near consuming markets. Other commodities will be pushed to remoter areas. When the bulky crops are produced in the remoter areas they are almost always converted into a more concentrated form for shipment. Hay and grain, for instance, will be converted into beef and dairy products.

The agricultural geography of the United States affords many illustrations of the relationship between transportation costs and types of farming. The importance of truck farming in close proximity to large cities has already been noted. Regional variations within the dairying industry itself show the influence of transportation charges and differences in distance from consuming markets. In the area about any large industrial center in parts of the United States where dairying is at all

⁴⁷ The problem of rival uses of the same area is involved in the choice of sites for factories, stores, etc., in any city.

⁴⁸ Thompson, C. W., "The Movement of Wheat-Growing: A Study of a Leading State," 18 *Quarterly Journal of Economics* 570 (1904).

feasible there tend to be three zones of dairying. Closest to the city is a fluid milk zone; beyond this is a cream zone; and farther out is a butter and cheese zone.⁴⁹ The dairying regions of New England market a large part of their product in the form of milk and cream because of the nearness to the centers of population represented by the New York and Boston milk markets. The dairying regions of the Middle West, because of greater distances from large centers of population, are the principal source of butter and cheese.

Professor G. F. Warren pointed out many years ago that the difference between Iowa and Illinois in the production of hogs is to be explained largely by differences in the cost of shipping hogs to market. Both Illinois and Iowa produce large quantities of corn, but Illinois had only about half as many hogs.⁵⁰ The Illinois farmer, in general, found it more profitable to ship his corn to market. The Iowa farmer, on the other hand, found it more profitable to convert corn into pork. "A difference of 2 cents per bushel in the price of corn," says Warren, "has been sufficient to make this surprising difference in the number of hogs."⁵¹ The difference in price of corn was due to the greater distance of the Iowa farmer from the grain markets. Although the freight rates are higher on hogs than on corn, a pound of pork represents five or six pounds of corn, and it is cheaper for the Iowa farmer to ship corn to market in the form of pork. Another way of looking at this zoning of agricultural production is to say that where feed is cheapest it will be converted into livestock. But we saw in Chapter II that grain, hay, and other products have their lowest value in regions remote from consuming markets because of the high cost of transporting them to market. It is in conformity with this principle also that the surplus poultry and egg production of the country is largely in the grain-growing regions where grain is cheapest.⁵²

The influence of freight charges on types of agricultural production is often revealed when rates are changed. Between 1913 and 1920, prices of potatoes rose rapidly and freight rates increased but slowly. This increased the production of potatoes in Idaho, and to a less extent

⁴⁹ Black, John D., *The Dairy Industry and the AAA* (Washington, The Brookings Institution, 1935), pp. 153-154; and Cassels, John M., *A Study of Fluid Milk Prices* (Cambridge, Harvard Univ. Press, 1937), pp. 20-24.

⁵⁰ Warren, G. F., *Farm Management* (New York, Macmillan, 1913), pp. 55-56.

⁵¹ *Ibid.*, p. 56.

⁵² Lippincott, Isaac, *Economic Development of the United States* (New York, Appleton, 1921), p. 407.

in Michigan. When the effects of the 1918 and 1920 advances in freight rates began to be felt, potato acreage in Idaho decreased to a considerable extent. A smaller decrease occurred in Michigan, but in the State of New York the acreage remained nearly the same."⁵³ Production of potatoes became less profitable in the regions remote from markets. The increases in freight rates during and after World War I made it less profitable for the Nebraska farmer to sell corn, and more profitable for him to feed it to hogs. The same increases in rates made it less profitable for the Ohio and Pennsylvania farmers to raise hogs, and more profitable for them to market their crops directly.⁵⁴ In the Fifteen Per Cent Case of 1931 the Board of Railroad Commissioners of the State of North Dakota argued that the high rates on grain coupled with low grain prices had resulted in a growing tendency to feed wheat to livestock in that State.⁵⁵ Changes in freight rates, either upward or downward, necessitate constant readjustments in the type of farming.

SELECTED REFERENCES

The most elaborate discussion of the relation of transportation costs to the location of industries is Alfred Weber, *Ueber den Standort der Industrien*. For an English translation see C. J. Friedrich, *Alfred Weber's Theory of the Location of Industries* (Chicago, Univ. of Chicago Press, 1929). Weber's treatment is abstract and highly theoretical. There is an excellent summary and criticism of Weber's theory in Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), pp. 467-475. A discussion of particular industries in the United States and the factors determining their geographical location is F. S. Hall, "The Localization of Industries," in *Twelfth Census of the United States, Manufactures*, Part I, (1902), pp. cxc-ccxiv. The article by E. A. Ross on "The Location of Industries," 10 *Quarterly Journal of Economics* 247 (1896), is a good general discussion of the subject. So also is the article by Malcolm Keir, "Economic Factors in the Location of Manufacturing Industries," 97 *Annals of the American Academy of Political and Social Science* 83 (1921). For a review of the literature on the subject see Witold Kryzanowski, "Review of the Literature of the Location of Industries," 35 *Journal of Political Economy* 278 (1927). For other general discussions see E. S. Lynch, "The Influence of Transportation on the Location of Economic Activities," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government

⁵³ Gabriel, H. S., *Index Numbers of Freight Rates and Their Relation to Agricultural Prices and Production*, Bulletin 446, Cornell University Agricultural Experiment Station (1925), pp. 31-34.

⁵⁴ Filley, H. C., *Hog Prices*, Nebraska Agricultural Experiment Station Bulletin 208 (1925), p. 10.

⁵⁵ *Brief Before the Interstate Commerce Commission in Ex Parte* 103 (1931), p. 3.

Printing Office, 1942), pp. 71-86; and Stephen Helburn, "Location of Industry," 19 *Journal of Land and Public Utility Economics* 253 (1943).

The theory of the location of industries is carefully developed and applied to the location of the shoe and leather industries in E. M. Hoover, Jr., *Location Theory and the Shoe and Leather Industries* (Cambridge, Harvard Univ. Press, 1937).

The law of market areas is explained by Frank A. Fetter in "The Economic Law of Market Areas," 38 *Quarterly Journal of Economics* 520 (1924). It is further developed by the same author in *The Masquerade of Monopoly* (New York, Harcourt, Brace & Co., 1931). John D. Black also discusses the subject in *Introduction to Production Economics* (New York, Holt, 1926), pp. 923-930. See also E. M. Hoover, Jr., *op. cit.*, and J. M. Cassels, *A Study of Fluid Milk Prices* (Cambridge, Harvard Univ. Press, 1937).

The relation of transportation costs to agriculture is most fully developed by J. H. von Thunen in *Der Isolierte Staat in Beziehung auf Landwirthschaft und Nationalökonomie* (Berlin, Wiegandt, Hempel and Parey, 1875). For a summary and criticism of Thunen's theory see Daggett, *op. cit.*, pp. 453-457. Chapter II in G. F. Warren, *Farm Management* (New York, Macmillan, 1913) contains much excellent material relative to the effect of freight rates on types of farming. The article of C. W. Thompson, "The Movement of Wheat Growing: A Study of a Leading State," 18 *Quarterly Journal of Economics* 570 (1904), develops the principles as they affect wheat growing. For the relation of transportation costs to the dairying industry see J. M. Cassels, *op. cit.*, and also John D. Black, *The Dairy Industry and the AAA* (Washington, The Brookings Institution, 1935), ch. VI.

CHAPTER IV

BEFORE RAILROADS

PRECEDING chapters have shown the economic importance of good transportation, and have discussed the relation of transportation costs and freight rates to prices and to the location of economic activity. With these considerations in mind it is advisable to give some attention to the history of transportation in the United States.

Railroads are little more than a hundred years old, but long before railroads had been thought of, the people of the United States had set about improving their transportation facilities to the best of their abilities. The systems which they constructed were of great importance at the time although they have been largely forgotten by later generations.

Colonial America relied chiefly upon the ocean and navigable streams for transportation routes. Communication between the colonies was difficult except by sea. The important cities and towns were on the coast or no farther inland than the head of navigation on the numerous streams flowing into the Atlantic.

RIVER BOATS

As settlers penetrated into the interior, the upper reaches of the streams were utilized by small river craft of various sorts for trade with the older towns along the coast. A not insignificant amount of commerce was carried on in this way. Later, as the territory west of the Alleghenies was settled, the Mississippi and Ohio rivers and their tributaries became important avenues of commerce.

Boats of various sizes and descriptions were used on the streams. It is almost impossible to distinguish between the many types of craft since the types as well as the nomenclature differed in different parts of the country. The boats were usually propelled by oars in quiet water, and by poles when moving against a strong current. The smaller and narrower boats were used for both upstream and downstream traffic; the larger craft were used only for floating traffic downstream.

Huge flat-boats were developed, particularly for the downstream traffic on the Mississippi and Ohio rivers. They were square-nosed boats with perpendicular sides, and were constructed of heavy planks. Flat-boats were unwieldy affairs, and although they had oars for steering,

they were propelled by the current. The advantage of the flat-boat lay in its large capacity and its ability to float in shallow water. Flat-boats were eventually constructed which were 150 feet long and 24 feet wide, and capable of carrying 300 tons.¹ They drew from only one to two and one-half feet of water. Large numbers of these boats carried traffic down the Ohio and Mississippi rivers to New Orleans. No attempt was made to move the flat-boats upstream. They were sold for lumber at destination, and the members of the crew made their way back on foot or in smaller boats that went up the river. The flat-boats rarely could be sold in New Orleans for more than a tenth of their cost.

Transportation by river boats was slow and dangerous. The trip from Pittsburgh to the mouth of the Ohio took 15 days under the most favorable conditions.² From Cincinnati to New Orleans and return took approximately six months.³ The risks of transportation were great. Boats were easily wrecked, and the rivers were full of snags and sand-bars. Sometimes the boats fell into the hands of river pirates.

It is difficult to say exactly what was the cost of transportation on the rivers. In the first place, costs varied greatly, depending upon the river to be navigated and the size of the boats. Much of the traffic, furthermore, was carried by the owner of the goods. This was particularly true in the Middle West. An individual might build a boat, buy up the produce of the region, and set out for New Orleans. Under such conditions transportation cost was largely an individual matter. Professor Dixon, however, estimates that the charges levied for upstream transportation on the Mississippi and its tributaries averaged about 7 cents per ton-mile, while the downstream rate was a little over 1 cent per ton-mile. The latter figure, it will be remembered, is about the average of the ton-mile earnings of the railroads in the United States today.

Notwithstanding the difficulties of river transportation the volume of traffic transported in this way was surprisingly large. It is estimated that as early as 1790 about 150,000 bushels of grain were floated down the Susquehanna River from Pennsylvania and southern New York for shipment to Philadelphia.⁴ During a period of about 4 months in 1827

¹ Dixon, Frank H., *Traffic History of the Mississippi River* (Washington, Government Printing Office, 1915), p. 13.

² MacGill, Caroline E., *History of Transportation in the United States Before 1860* (Washington, Carnegie Institution, 1917), p. 94.

³ Ringwalt, J. L., *Development of Transportation Systems in the United States* (Philadelphia Railway World Office, 1888), p. 14.

⁴ Harlow, Alvin, H., *Old Lowpaths* (New York, Appleton, 1926), p. 37.

CHAPTER IV

BEFORE RAILROADS

PRECEDING chapters have shown the economic importance of good transportation, and have discussed the relation of transportation costs and freight rates to prices and to the location of economic activity. With these considerations in mind it is advisable to give some attention to the history of transportation in the United States.

Railroads are little more than a hundred years old, but long before railroads had been thought of, the people of the United States had set about improving their transportation facilities to the best of their abilities. The systems which they constructed were of great importance at the time although they have been largely forgotten by later generations.

Colonial America relied chiefly upon the ocean and navigable streams for transportation routes. Communication between the colonies was difficult except by sea. The important cities and towns were on the coast or no farther inland than the head of navigation on the numerous streams flowing into the Atlantic.

RIVER BOATS

As settlers penetrated into the interior, the upper reaches of the streams were utilized by small river craft of various sorts for trade with the older towns along the coast. A not insignificant amount of commerce was carried on in this way. Later, as the territory west of the Alleghenies was settled, the Mississippi and Ohio rivers and their tributaries became important avenues of commerce.

Boats of various sizes and descriptions were used on the streams. It is almost impossible to distinguish between the many types of craft since the types as well as the nomenclature differed in different parts of the country. The boats were usually propelled by oars in quiet water, and by poles when moving against a strong current. The smaller and narrower boats were used for both upstream and downstream traffic; the larger craft were used only for floating traffic downstream.

Huge flat-boats were developed, particularly for the downstream traffic on the Mississippi and Ohio rivers. They were square-nosed boats with perpendicular sides, and were constructed of heavy planks. Flat-boats were unwieldy affairs, and although they had oars for steering,

they were propelled by the current. The advantage of the flat-boat lay in its large capacity and its ability to float in shallow water. Flat-boats were eventually constructed which were 150 feet long and 24 feet wide, and capable of carrying 300 tons.¹ They drew from only one to two and one-half feet of water. Large numbers of these boats carried traffic down the Ohio and Mississippi rivers to New Orleans. No attempt was made to move the flat-boats upstream. They were sold for lumber at destination, and the members of the crew made their way back on foot or in smaller boats that went up the river. The flat-boats rarely could be sold in New Orleans for more than a tenth of their cost.

Transportation by river boats was slow and dangerous. The trip from Pittsburgh to the mouth of the Ohio took 15 days under the most favorable conditions.² From Cincinnati to New Orleans and return took approximately six months.³ The risks of transportation were great. Boats were easily wrecked, and the rivers were full of snags and sand-bars. Sometimes the boats fell into the hands of river pirates.

It is difficult to say exactly what was the cost of transportation on the rivers. In the first place, costs varied greatly, depending upon the river to be navigated and the size of the boats. Much of the traffic, furthermore, was carried by the owner of the goods. This was particularly true in the Middle West. An individual might build a boat, buy up the produce of the region, and set out for New Orleans. Under such conditions transportation cost was largely an individual matter. Professor Dixon, however, estimates that the charges levied for upstream transportation on the Mississippi and its tributaries averaged about 7 cents per ton-mile, while the downstream rate was a little over 1 cent per ton-mile. The latter figure, it will be remembered, is about the average of the ton-mile earnings of the railroads in the United States today.

Notwithstanding the difficulties of river transportation the volume of traffic transported in this way was surprisingly large. It is estimated that as early as 1790 about 150,000 bushels of grain were floated down the Susquehanna River from Pennsylvania and southern New York for shipment to Philadelphia.⁴ During a period of about 4 months in 1827

¹ Dixon, Frank H., *Traffic History of the Mississippi River* (Washington, Government Printing Office, 1915), p. 13.

² MacGill, Caroline E., *History of Transportation in the United States Before 1860* (Washington, Carnegie Institution, 1917), p. 94.

³ Ringwalt, J. L., *Development of Transportation Systems in the United States* (Philadelphia Railway World Office, 1888), p. 14.

⁴ Harlow, Alvin, H., *Old Townships* (New York, Appleton, 1926), p. 37.

a count was made at Harrisburg which showed that 1,631 rafts, 1,370 arks, and 300 keel-boats had passed down the Susquehanna. It was estimated that the tonnage consisted of approximately 40,000,000 feet of lumber, 468,000 barrels of flour and whiskey, 244,000 bushels of wheat, and 11,000 tons of coal.⁵ It is estimated that as early as 1817, 1,500 flat-boats and 500 barges went down the Mississippi to New Orleans annually.⁶ In the twenties it was not uncommon for a hundred boats a day to pass New Madrid, below the mouth of the Ohio.⁷ A single flat-boat might carry a cargo worth two or three thousand dollars. Large quantities of pork, bacon, flour, whiskey, apples, cider, and cheese were shipped to New Orleans every year by boats. The value of the cargoes going down the Mississippi was over \$3,600,000 in 1801, and \$5,370,000 in 1807.⁸ The tonnage upstream on the Mississippi was only about 10 percent of that down. On the Ohio the volume of upstream traffic was relatively greater than on the Mississippi as the current on the Ohio was not so strong.⁹ The upstream traffic consisted largely of coffee, sugar, molasses, and manufactured goods from the East. When the steamboats came upon the scene they took the upstream traffic, and the keel-boats and similar craft practically disappeared from the rivers. The flat-boats, however, still continued to carry goods down the streams; in fact, their number increased. River traffic was increasing in volume, and the downstream tonnage was greater than that upstream. Steamboats carried most of the upstream traffic and returned with a load, but supplemental facilities were necessary to carry the downstream tonnage. The flat-boat was suited to this task as the cost of floating the cargoes down the river compared favorably with steamboat charges. It is estimated that between 1820 and 1830, although steamboats were common, as many as 3,000 flat-boats annually descended the Ohio.¹⁰ In 1846-47 nearly 2,800 flat-boats arrived at New Orleans.¹¹ After that time there was a steady decline in the flat-boat business. The Civil War stopped the traffic completely and it was not revived to any great extent afterwards.

⁵ *Ibid.*

⁶ *Ibid.*

⁷ *Ibid.*, p. 38.

⁸ MacGill, *op. cit.*, p. 109.

⁹ *Ibid.*

¹⁰ Dixon, *op. cit.*, p. 14.

¹¹ *Ibid.*

STEAMBOATS

Robert Fulton is given credit for the first successful steamboat, the *Clermont*, which went up the Hudson River from New York to Albany in 1807. The steamboat made its first appearance on the Ohio River in 1809. In 1811 the steamboat *Enterprise* made its way from Pittsburgh to New Orleans. But it was not until 1817 that a regular service both upstream and downstream was established on the Ohio and Mississippi rivers. Table VIII, showing the steamboats built on the Ohio in different years, indicates the rise of steamboating.

TABLE VIII
STEAMBOATS BUILT ON THE OHIO RIVER¹²

1811	1	1820	10
1814	1	1821	5
1815	2	1822	13
1816	3	1823	15
1817	7	1824	16
1818	25	1825	27
1819	34	1826	56
		1827	36

The first steamboat appeared on the Great Lakes in 1816, but steamboat traffic did not develop extensively on the Lakes until about 1850.

The early steamboats were flimsily built and recklessly operated and were rarely fit for service after five years.¹³ Previous to 1826, 41 percent of all the steamboats constructed on the Mississippi had either been sunk or destroyed.¹⁴ Between 1810 and 1850 the steamboats lost on the Mississippi numbered 1,070 and represented an investment of over \$7,000,000, and the persons killed and injured numbered 4,180.¹⁵

The speed of the steamboats was slow when compared with the speed of railway transportation today, but better time was made than had been possible in the old boating days. The average rate of speed on the Mississippi and Ohio in 1840 was about 6 miles per hour upstream, and 10 or 12 miles per hour downstream.¹⁶

Steamboat rates fluctuated greatly. They varied with the amount of traffic available and the number of boats to carry it. On the Ohio River they varied inversely with the height of the river; during seasons of low water the rates were often four times the rates during high

¹² MacGill, *op. cit.*, p. 108.

¹³ Dixon, *op. cit.*, p. 28.

¹⁴ MacGill, *op. cit.*, p. 108.

¹⁵ Dixon, *op. cit.*, p. 28.

¹⁶ *Ibid.*

water, and even became ten times as high.¹⁷ Sometimes the rates represented monopoly charges; at other times, when competition was strong, they were reduced to much lower levels. As a result, it is difficult to say what normal charges were. In 1839 the rates from New Orleans to St. Louis were 75 cents per hundred pounds, or 13 mills per ton-mile. Between 1850 and 1860 freight rates from Pittsburgh to St. Louis were frequently from 3.6 to 4.3 cents per ton-mile. At times, however, the rates were less than a cent per ton-mile.¹⁸ In 1839 the chief engineer of the James River and Kanawha Canal & Railroad estimated that the rates on steamboats ranged from ½ to 1½ cents per ton-mile.¹⁹ In 1854 the State engineer of New York estimated that the average rate

TABLE IX
ARRIVALS OF STEAMBOATS AT NEW ORLEANS²⁰

1814	21	1840.....	1,573
1815	40	1845	2,530
1820.....	198	1850.....	2,784
1825 ..	502	1855 ..	2,763
1830 ..	989	1860... ..	3,566
1835.. . . .	1,005		

per ton-mile on the Mississippi from New Orleans to be from 6 to 8 mills, on the Ohio 8 mills, and on the Hudson 7 mills.²¹

The steamboats made the Ohio and Mississippi rivers the principal avenues of commerce in the Middle West. New Orleans, in 1840, ranked fourth among the ports of the world. It was exceeded only by London, Liverpool, and New York in the amount of commerce which it handled.²² Bogart estimates that the total commerce on the western rivers in 1860 exceeded \$300,000,000.²³ The volume of traffic on the rivers is indicated by the steamboat arrivals at New Orleans in various years. These figures are shown in Table IX.

Steamboat traffic continued to develop until about 1860. Between 1850 and 1860, however, the steamboats began to feel the competition of railroads. Before this time the railroads had been largely passenger carriers, and in so far as they carried freight they acted as feeders to the

¹⁷ Hunter, Louis C., *Studies in the Economic History of the Ohio Valley*. Smith College Studies in History, vol. 19 (1933-34), p. 8.

¹⁸ Dixon, *op. cit.*, p. 27.

¹⁹ MacGill, *op. cit.*, p. 574.

²⁰ Dixon, *op. cit.*, p. 15.

²¹ MacGill, *op. cit.*, p. 581.

²² Dixon, *op. cit.*, p. 15.

²³ Bogart, E. L., *Economic History of the American People* (New York, Longmans, 1930), p. 330.

waterways. During the fifties, with the consolidation of railroads into longer lines and the construction of additional mileage, the railroads began to divert traffic from the rivers of the Middle West. Traffic that formerly went down the rivers was diverted eastward by rail. When the Civil War broke out, traffic on the Mississippi practically ceased. After the war, traffic revived somewhat, but the steamboats were unable to compete successfully with the railroads. After 1880 steamboating declined rapidly until the boats practically disappeared from the western rivers.

CANALS

During the early part of the nineteenth century an extensive system of canals was constructed in the United States. More than 4,400 miles

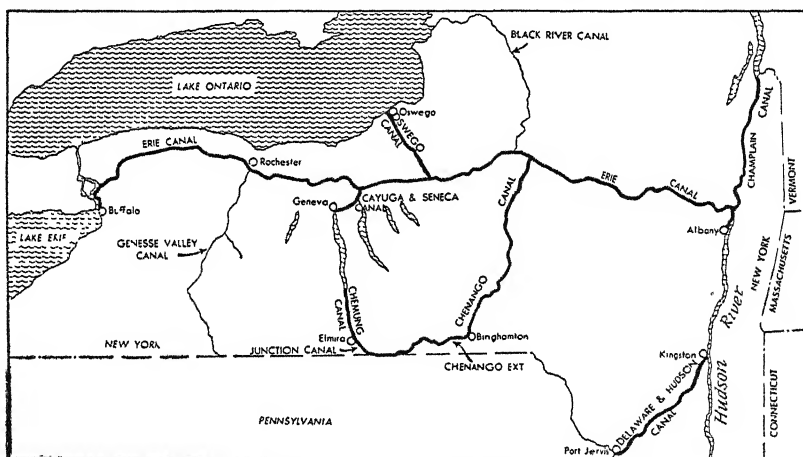


FIG. 12.—The Erie Canal.

were completed of which nearly all was constructed during the first half of the century. There had been some canal construction in the 1780's and 1790's but it consisted largely of short canals around waterfalls or rapids in the rivers. The era of canal building was really ushered in with the completion of the Erie Canal in 1825. This period came to an end with the crisis of 1837, but canal building on a smaller scale continued in the forties and fifties.

Several of the early canals in the United States were built in Pennsylvania and connected the anthracite coal fields with tidewater. These canals were built by private companies, while most of the canals completed during the era of rapid canal building were State enterprises. Historically, the most important canal built in the United States was the

Erie Canal was a system of railroads and canals in Pennsylvania which came to be known as the Pennsylvania Public Works. The main line of this system was projected as a rival of the Erie Canal. The Erie Canal was giving New York a larger share of the trade with the West to the detriment of Philadelphia. The Pennsylvania Public Works were supposed to recover much of this trade for Philadelphia. Although the system comprised both railroads and canals, it may properly be considered in this chapter, as the canal mileage exceeded the rail mileage and the railroads were considered as means of portaging freight over difficult sections of the route where a canal was impossible or imprac-

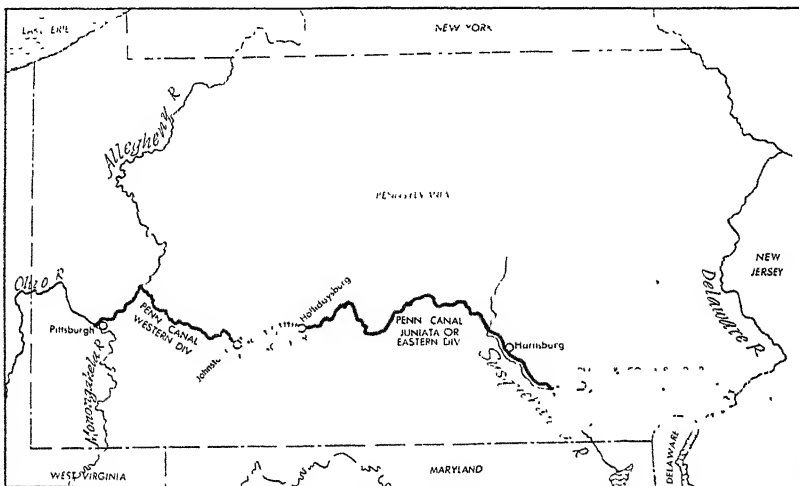


FIG. 14.—Main Line, Pennsylvania Public Works.

ticable. As finally constructed, the main line of the system consisted of a railroad from Philadelphia to Columbia, 81 miles; the Eastern Division of the Pennsylvania Canal from Columbia to Hollidaysburg, 173 miles; the Allegheny Portage Railroad from Hollidaysburg to Johnstown, 36 miles; and the Western Division of the Pennsylvania Canal from Johnstown to Pittsburgh, 105 miles. The entire length was 395 miles, of which 278 was by canal. A railroad instead of a canal was constructed from Philadelphia to Columbia because of the hilly country which had to be traversed. The Allegheny Portage Railroad was constructed because of the impossibility of constructing a canal over the mountains. The Portage Railroad consisted of five level stretches and five inclined planes on both eastern and western slopes of the mountains, with a level section at the summit one and one-half

miles long. Horses at first supplied the motive power on the levels, but locomotives were used later. Stationary engines pulled the cars over the inclined planes by means of cables. The steepest plane rose $10\frac{1}{2}$ feet in every 100 feet. The highest point on the summit was 1,399 feet above the canal at Hollidaysburg and 1,172 feet above the canal at Johnstown.²⁴ Boats were constructed in sections for use on the Pennsylvania Canal, and each section was mounted on trucks at the junction

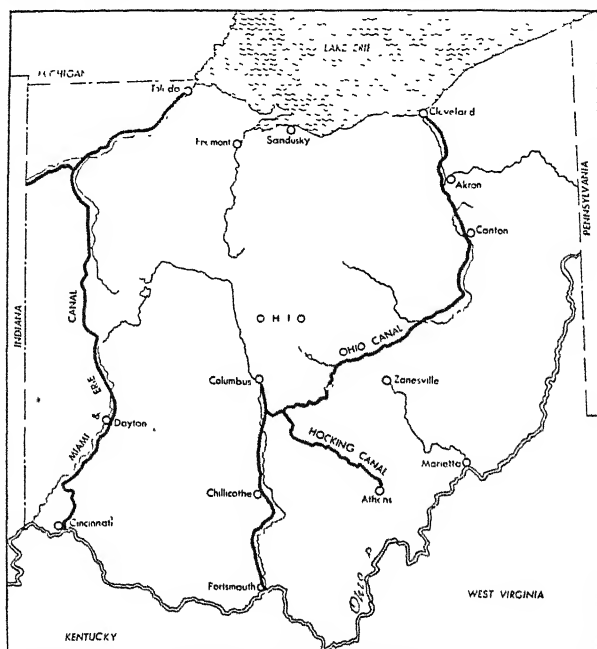


FIG. 15.—The Ohio Canals.

with the Portage Railroad and hauled over the mountains, where the sections were assembled and placed in the canal again.

The Main Line of the Pennsylvania Public Works was completed in 1834 at a cost of about \$10,000,000. The route was undoubtedly of great benefit to those sections of the State which it served, but it was not a successful competitor of the Erie Canal. The physical features of the country did not permit as favorable a route through Pennsylvania as through New York. Merchants and manufacturers of Philadelphia found it cheaper to ship goods to New York and thence to the West by the Erie Canal than to patronize the nearer route.

²⁴ These facts regarding the Allegheny Portage Railroad are taken from a pamphlet, *The Allegheny Portage Railroad*, published by the Pennsylvania Railroad, 1930.

Still other States undertook extensive canal projects during this period. The Ohio canals, joining Lake Erie and the Ohio River, were of considerable importance in the development of that State. Indiana constructed the Wabash and Erie Canal and the White Water Canal. Illinois built the Illinois and Michigan Canal. New York built an extensive system of branch canals to supplement the Erie Canal.

Evidence of the activity in canal construction which took place in the twenties and thirties can be seen in the figures of State indebtedness at the time. Prior to 1820, no extensive use of public credit had been made by the States. Between 1820 and 1840 the States incurred nearly \$200,000,000 of indebtedness.²⁵ Most of this went into internal improvements—railroads, canals, and highways. Many of the canals were absolutely unwarranted. Others would have proved valuable if railroads had not appeared on the scene at about the same time. Others were of immense value for a few decades until the railroads created a superior transportation system.

The feverish activity of the States in canal building has two basic explanations. The people of the interior were badly in need of improved transportation facilities. Their economic success was contingent upon the development of cheaper transportation since the development of profitable agriculture in the West was dependent upon ability to ship the product to market. Wheat was being imported from Europe into the seaboard cities although the West could have produced all the country required and much more besides.

The second reason for the extravagance of the States in constructing canals and other internal improvements is to be found in the inflation and speculative activity of the times. It was a boom period, and public psychology was not unlike that during the Florida land boom nearly a hundred years later, or the stock-market boom that ended in 1929. Unbounded optimism prevailed. As one writer says: "It is not too much to say that these were years of business insanity. Cool judgment had for the time lost control, and men acted upon an impulse which they themselves could not afterward understand. The enthusiasm of legislators was merely one of the manifestations of the general enthusiasm of the times."²⁶ When the bubble burst, the States were hopelessly in debt. Many of the States defaulted on their obligations, and some repudiated their debts.

²⁵ Bogart, *op. cit.*, p. 336.

²⁶ Adams, H. C., *Public Debts* (New York, Appleton, 1887), p. 328.

The canals constructed during this era seem to us today poor excuses for a transportation system, hopelessly inefficient and slow. Often they were mere ditches—the Erie Canal when completed was only four feet deep, forty feet wide at the top and twenty-eight at the bottom. No mean engineering skill and ability, however, was spent in building the canals. Lock construction often proved difficult. The canals did not always follow the streams; sometimes they led along the side of ridges, tunnelled hills, or were flung across valleys or streams by huge aqueducts. Providing an adequate supply of water frequently proved a difficult problem, also.

Although the canals were eventually superseded by railroads, they served the country well during the period of their existence, and carried large quantities of freight. The tolls collected on the Pennsylvania State canals for the first six years of their operation averaged \$1,125,000 yearly.²⁷ The Erie, of course, surpassed them all in the volume of traffic. In 1826, the year after the Erie was completed, fifty boats a day commonly left Albany for the West.²⁸ In 1869 there were 6,870 boats on the New York canals, so many in fact as to create a problem of congestion. During this period and for many years after, it was said that one might stand on a bridge over the Erie Canal and see in either direction, as far as the eye could reach, two continuous lines of boats, one moving east, the other west, and during the night the headlights gave the appearance of an endless torchlight procession.²⁹ The tonnage on the Erie increased long after the other canals were going out of existence. It reached 4,608,651 tons in 1880.³⁰ After that time the traffic declined. Up to 1870 the tolls from the New York canals averaged over \$4,000,000 per year. Toll reductions after that date decreased the earnings, and in 1882 tolls were abolished altogether. In the 60 years of toll-gathering the revenue received from the Erie exceeded the cost of construction, and the sums spent on improvement, superintendence, and repairs, and left a balance of more than \$42,500,000.³¹ The branch canals, however, were not profitable.

Comparatively low charges were made for transporting goods on the canals. Ringwalt says that the average tolls on several important canals in 1832 were two cents per ton-mile, and the cost of moving

²⁷ Harlow, *op. cit.*, p. 131.

²⁸ *Ibid.*, p. 66.

²⁹ *Ibid.*, p. 156.

³⁰ *Ibid.*

³¹ *Ibid.*, p. 157.

the goods, one cent, making three cents per ton-mile the total charge. From 1850 to 1872 the amounts received by carriers on the Erie Canal varied from 6.72 mills to 11.10 mills per ton-mile. The average for the period was 9.14 mills.³² This figure includes tolls. In 1850 the New York State engineer estimated the average rate per ton-mile on various canals to be as follows: Erie Canal, 11 mills; Pennsylvania Canals, 24 mills; Ohio Canal, 10 mills; Wabash and Erie Canal, 19 mills.³³

Even after railroads had been constructed the canals continued to do a good business. For a time it was an open question whether railroads or canals should be built.³⁴ Gradually it became clear that the railroads were superior in many respects. The Erie Canal did not reach its peak in tonnage carried until 1880, but even before this it was steadily losing in the proportion of total east and west traffic which it carried, and the railroads were gaining. A special report on the canals of the United States prepared for the census of 1880 shows that of the 4,468 miles of canals which had been constructed, nearly 2,000 miles had been abandoned and a large portion of the rest was not paying expenses.³⁵ In 1924, two of the last great canals were abandoned, the Chesapeake & Ohio, and the Morris.³⁶ Even if we consider the New York State Barge Canal as the old Erie, there remain in existence only about 700 miles of canals in the United States, and these are either modern barge canals or ship canals. The old towpath has long passed into history, but barge canals and ship canals still have a place in the transportation system of the country.³⁷

EARLY TRAILS AND THE PACK-HORSE ERA

The transportation system which we have just described made use of waterways, natural or artificial. Where waterways were not available or could not be constructed, agencies for transportation by land had to be developed. In Colonial America there were very few roads that were suitable for wheeled vehicles of any sort. During this period such commerce as could not be carried on by water was largely carried on by means of pack-horses. Between 1750 and 1790 there were persons in nearly all important communities who made a business of carrying

³² Ringwalt, *op. cit.*, p. 47.

³³ MacGill, *op. cit.*, p. 581.

³⁴ See p. 93, *infra*.

³⁵ Purdy, T. C., "Report on the Canals of the United States," *Tenth Census* (1880), vol. 4, p. 731.

³⁶ Harlow, *op. cit.*, p. 1.

³⁷ See ch. XXX.

goods by this means. One owner of a pack-horse business in Pennsylvania employed about 200 horses and more than 100 men.³⁸ Many thousands of persons were employed in this business throughout the country. The cost of transporting goods in this way was prohibitive except for the most valuable or most essential articles. The cost of transportation by pack-horse from Philadelphia to Erie was \$249 per ton.³⁹ The business of the pack-horse drivers was threatened when roads were constructed. They naturally opposed the making of wagon roads, and incidents are told of violent treatment of wagoners and coachmen at the hands of the pack-horse people when the construction of roads made the use of wheeled vehicles practicable.

WAGON ROADS

Gradually the trails or "tote-roads" were widened into wagon roads, and travel by stagecoaches and transportation of goods by wagon became possible. The roads were generally dirt roads and the cost of transportation was still high. Under very favorable conditions the cost might be as low as 10 cents per ton-mile, but it was usually higher. In 1852 it was said that the average charge for transporting grain by wagon in the United States was 15 cents per ton-mile.⁴⁰ In Wisconsin, 20 cents per ton-mile was said to be the average charge for transporting goods by wagon.⁴¹ Where roads were poor the cost was much higher, as is shown by Government contracts for the transportation of army supplies in the West. These costs often averaged from 28 to 35 cents per ton-mile.⁴²

TURNPIKES

Inadequate provision for public highways and the wretched condition of such roads as existed in colonial times created an opportunity for private companies to build good roads, called turnpikes, and to charge tolls for the use of them. The name "turnpike" is derived from the pole or gate, which turned on a pike and was placed across the road to enforce the payment of tolls before one could proceed. These gates were constructed at intervals along the road. Strictly speaking, a turnpike was a toll road, but the word "turnpike" later came to be used for any improved road even if it was a public road free of toll.

³⁸ Ringwalt, *op. cit.*, p. 24.

³⁹ *Ibid.*, p. 21.

⁴⁰ *Ibid.*, pp. 27-28.

⁴¹ *Ibid.*, p. 28.

⁴² *Ibid.*

A few turnpikes were built about 1789, but the Philadelphia and Lancaster Turnpike, completed in 1794, was the first one of importance. This road was a financial success and led to the construction of others. The turnpike movement was well under way by 1800. Within the next few years Pennsylvania chartered 86 turnpike companies which built about 2,200 miles of road; New York chartered 135 companies which had built about 1,500 miles by 1811; New England had chartered 180 companies by 1810.⁴³ Many turnpikes were constructed in Ohio after 1810. Some of the States gave subsidies to turnpike companies. Prior to 1822, Pennsylvania had paid nearly two million dollars in this way. This represented about a thousand dollars a mile, or one-third of the total cost of the turnpikes.⁴⁴ Ohio subscribed to stock in turnpike companies to the amount of \$2,000,000, and it is estimated that local governments spent as much more.⁴⁵

Some of the turnpike companies were profitable, but for the most part the stockholders in turnpike companies received very moderate returns or nothing at all.⁴⁶ This was particularly true after canals and railroads began to take long-distance traffic. After 1830 few turnpikes were built. Most of the turnpikes gradually reverted to public control by abandonment, although a few remained in existence until the early part of the twentieth century when they were bought out and incorporated into the State highway systems that had begun to develop.

One of the most famous turnpikes was the Cumberland Road, or "National Pike." It was begun in 1806 and was constructed by the Federal Government. In 1818 it extended from Cumberland, Maryland, to Wheeling, on the Ohio River. Later the road was extended westward, finally reaching Vandalia, Illinois, in 1838. The road was to have been continued westward, but the coming of the railroads made its further extension appear unwise. The eastern portion of the road was built more substantially than the western portion. The first contracts called for a layer of stone 15 inches thick which was to be covered with gravel, and rolled. The last portion, terminating at Vandalia, was simply a dirt road. The cost of the Cumberland Road, including appropriations for maintenance, amounted to \$6,800,000. At first, tolls were not charged, as the road was maintained from Congressional appropriations.

⁴³ Bogart, *op. cit.*, p. 324.

⁴⁴ Hadley, A. T., *Railroad Transportation* (New York, Putnam, 1885), p. 26.

⁴⁵ MacGill, *op. cit.*, p. 125.

⁴⁶ Durrenberger, J. A., *Turnpikes: A Study of the Toll Road Movement in the Middle Atlantic States and Maryland* (Valdosta, Ga., Author, 1931), pp. 112-116.

In 1822, President Monroe vetoed a bill for the collection of tolls for repair of the road, on the grounds that the Federal Government did not have the power under the Constitution to maintain such a highway through the States. During Jackson's administration the road was transferred to the States through which it passed. The States immediately began to levy tolls. Ohio secured about \$20,000 a year from tolls in favorable years.⁴⁷ After 1850, Ohio leased portions of the road to private parties.⁴⁸ Later the State again took over the road as the leases were not profitable to the holders.

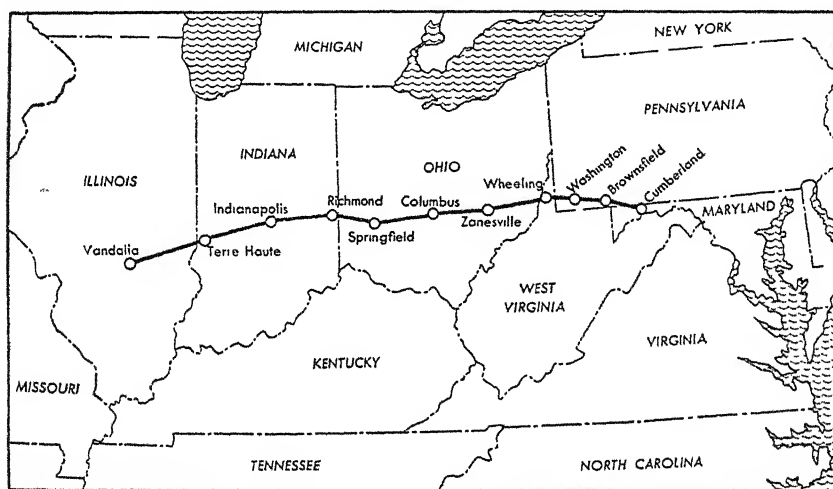


FIG. 16.—Route of the Cumberland Road.

The Cumberland Road, after it was opened to Wheeling, became an important thoroughfare between the East and the West. Before the road was constructed, eight days were required for a journey from Baltimore to Wheeling, but the time was reduced to three days upon the completion of the road. In 1828 more than a thousand wagons went from Wheeling to Baltimore loaded with the products of the West.⁴⁹ One writer, in describing the traffic over the road, says: "Within a mile of the road the country was a wilderness, but on the highway the traffic was as dense and as continuous as in the main street of a large town."⁵⁰

The cost of transporting goods over the turnpikes was somewhat

⁴⁷ Gephart, W. F., *Transportation and Industrial Development in the Middle West* (1909), Columbia University Studies, vol. XXXIV, p. 53.

⁴⁸ *Ibid.*

⁴⁹ Ringwalt, *op. cit.*, p. 34.

⁵⁰ Rideing, Wm. H., "The Old National Pike," 59 *Harper's Magazine* 801, 806 (1879).

less than over ordinary roads. It is said that on the average it cost about \$10 per ton for every hundred miles.⁵¹ This is at the rate of 10 cents per ton-mile. Robert Fulton, in a letter to Gallatin, stated that the charge for transporting a barrel of flour (about 200 pounds) on the Lancaster Turnpike from Philadelphia to Columbia was one dollar. This would be at the rate of about 13.5 cents per ton-mile.⁵² MacGill states that the cost of transporting goods over a turnpike averaged 13 cents per ton-mile.⁵³

PLANK ROADS

Another type of road developed in America was the plank road. These roads were constructed of heavy planks laid on stringers, or heavy pieces of timber. They were usually constructed by private companies. In reality a plank road was a turnpike, since tolls were levied, but the term "turnpike" had come to apply to a special type of road construction rather than to the method of paying for the upkeep of the roads.

Plank roads were supposed to have originated in Russia,⁵⁴ but this method of road construction was almost inevitable in any country where timber was plentiful and cheap. One of the first plank roads in North America was built in Toronto in 1835. The first one in the United States was built at Syracuse. Twenty thousand miles of plank roads were constructed in the State of New York, and several thousands of miles were constructed in other parts of the country. A feverish building of such roads occurred in the United States between 1845 and 1857.

The cost of constructing plank roads was from \$1,000 to \$2,400 per mile—much less than the cost of constructing macadamized roads. They were subsidized by the States in some instances. Thus, in 1848, North Carolina subscribed one-fifth of the capital stock of the Fayette & Western Plank Road.⁵⁵

Some plank roads returned a profit for a time, but in most cases they were unprofitable ventures. The rapid deterioration of the plank surfaces and the rotting of the stringers on which the planks were laid made the cost of upkeep high. Gross revenues were usually insufficient to provide for this replacement.

⁵¹ Bogart, *op. cit.*, p. 324.

⁵² Ringwalt, *op. cit.*, p. 33.

⁵³ MacGill, *op. cit.*, p. 208.

⁵⁴ See quotation in MacGill, *op. cit.*, p. 301, taken from *Debow's Review* (1851).

⁵⁵ MacGill, *op. cit.*, p. 300.

Plank roads had several advantages over ordinary roads. The cost of constructing them was about half that of macadamized roads; a team could draw heavier loads on them than on a macadamized road; and rains, thaws, and spring mud did not obstruct transportation over them.

The plank roads seem to have retarded railroad building in some sections of the country. In other cases they served as branch lines and feeders to railways.

CONESTOGA WAGONS

The transportation of goods by wagons over roads and turnpikes evolved a special type of wagon which became very popular as a freighter in the eastern part of the country. These wagons were known as Conestoga wagons, having originated in the Conestoga Valley, in Pennsylvania. A distinguishing feature of the Conestoga wagon seemed to be that the wagon "box" or "bed" sagged in the middle so that a shifting of the load would not throw the weight against the ends but towards the middle of the wagon. The end-boards of the wagons flared outward, giving the wagon a boat-shaped appearance. The wagon was covered with a white top, spread over a series of bows which followed the sagging contour of the wagon bed, and gave the wagon its peculiar silhouette. Another feature of the Conestoga wagon was the color. Custom decreed that the lower part should be painted blue, and the upper woodwork a bright red. "This chromatic scheme," one writer says, "was as inevitable for every Conestoga wagon as though it had been prescribed by law with a penalty for refusal so to decorate."⁵⁶ The wagons had broad tires—four to six inches wide. They had a capacity of six or eight tons and were usually drawn by six horses. These wagons were abundant on the Philadelphia and Lancaster Turnpike. Inns and taverns sprang up along the roads to care for the wagoners and their teams. In some places the taverns were only a mile apart, and at night the yards would be filled with teams. About 1817 there were said to be three thousand such wagons regularly engaged in the business of hauling goods between Philadelphia and Pittsburgh.⁵⁷ Most of the hauling over the Cumberland Road was in Conestoga Wagons. Long lines of the white-topped wagons rumbled along the turnpikes and highways with

⁵⁶ Dunbar, Seymour, *A History of Travel in America* (Indianapolis, Bobbs-Merrill, 1915), vol. I, pp. 203-204.

⁵⁷ Omwake, John, *The Conestoga Six-Horse Bell Teams of Eastern Pennsylvania* (Cincinnati, published by the author, 1930), p. 103.

their loads of freight, and at night the wagoners thronged the taverns or wagon-houses.

There seem to have been three kinds of transportation agencies operating these wagons over the National Pike and other roads.⁵⁸ First, there were the individual owners of the six-horse teams who made a regular business of hauling freight as contract carriers; second, farmers along the road who, in the slack farming season, went into the business temporarily; and lastly, the large freight companies that owned many wagons and were in fact transportation companies. The last group was the most important of the three.

After 1830 wagoning began to decline.⁵⁹ Canals and railroads had appeared on the scene and they soon put an end to the earlier form of transportation and the various forms of activity that went with it.

SELECTED REFERENCES

The two most complete accounts of the transportation methods in the United States before railroads were built are to be found in J. L. Ringwalt, *The Development of Transportation Systems in the United States* (Philadelphia, Railway World Office, 1888), and Caroline E. MacGill, *History of Transportation in the United States Before 1860* (Washington, Carnegie Institution, 1917). Seymour Dunbar, *A History of Travel in America*, 4 volumes (Indianapolis, Bobbs-Merrill, 1915), although popularly written and concerned more with travel than with the transportation of goods, contains much information and is well illustrated. A. B. Hulbert, *Historic Highways of America* (Cleveland, A. H. Clark Co., 1902-1905), in 16 volumes is valuable but diffuse. *The Paths of Inland Commerce*, by the same author (New York, Yale University Press, 1921), contains interesting chapters.

An excellent account of steamboat transportation and earlier boating on the Mississippi River and its tributaries is F. H. Dixon, *Traffic History of the Mississippi River* (Washington, Government Printing Office, 1915), a study made for the National Waterways Commission. Additional material may be found in C. H. Ambler, *A History of Transportation in the Ohio Valley* (Glendale, Calif., A. H. Clark Co., 1931), and in L. H. Hunter, *Studies in the Economic History of the Ohio Valley*, Smith College Studies in History, Vol. 19, nos. 1 and 2 (1933, 1934). On the invention of the steamboat and its adaptation to conditions prevailing on the western rivers see L. C. Hunter, "The Invention of the Western Steamboat," 3 *Journal of Economic History* 201 (1943). An interesting description of early steamboats and steamboating on the western rivers is in James Hall, *The West, Its Commerce and Navigation* (Cincinnati, H. W. Derby Co., 1848), chs. VIII-XIII.

The best general volume on the canal era is Alvin F. Harlow, *Old Towpaths*

⁵⁸ This classification is found in MacGill, *op. cit.*, p. 127.

⁵⁹ Omwake, *op. cit.*, p. 101.

(New York, Appleton, 1926), but the author does not reveal the sources of his material. A brief history of each canal constructed in the United States is found in T. C. Purdy, "Report on the Canals of the United States," in volume 4 of the United States Census report for 1880. A more detailed account of the canals, with statistical information, is included as Appendices 6 and 7 of the *Preliminary Report of the Inland Waterways Commission* (60th Cong., 1st sess., Senate Doc. No. 325, 1908). Special studies are available for particular canals. The early private canal projects of Pennsylvania are treated in C. L. Jones, *Economic History of the Anthracite-Tidewater Canals* (Philadelphia, University of Pennsylvania, series in Political Economy and Public Law, No. 22, 1908). A detailed account of the Pennsylvania Canal is in A. L. Bishop, "State Works of Pennsylvania," published in volume 13 of the *Transactions of the Connecticut Academy of Arts and Sciences* (New Haven, 1908). A detailed history of the New York canals is found in the *Supplement to the Annual Report of the State Engineer and Surveyor of the State of New York for 1905* (Albany, 1906). An account of the canals in the Middle West is given in W. F. Gephart, *Transportation and Industrial Development in the Middle West* (New York, 1909), Columbia Univ. Studies, Vol. XXXIV, No. 1. Information concerning the Ohio canals may be found in E. L. Bogart, *Internal Improvements and State Debt of Ohio* (New York, Longmans, 1924). The history of the Middlesex Canal is told in Christopher Roberts, *The Middlesex Canal* (Cambridge, Harvard Univ. Press, 1938). The history of New Jersey and eastern Pennsylvania canals is given in Wheaton J. Lane, *From Indian Trail to Iron Horse—Travel and Transportation in New Jersey, 1620-1860* (Princeton, Princeton Univ. Press, 1939), ch. 9.

The most complete study of turnpikes and plank roads is Joseph A. Durrenberger, *Turnpikes: A Study of the Toll Road Movement in the Middle Atlantic States and Maryland* (Valdosta, Ga., the Author, 1931). See also Wheaton J. Lane, *op. cit.*, ch. 7. A detailed history of the Cumberland Road is told by Thomas B. Searight in *The Old Pike* (Uniontown, Pa., the Author, 1894). An interesting popular account, profusely illustrated, of the Conestoga wagons is afforded by John Omwake, *The Conestoga Six-Horse Bell Teams of Eastern Pennsylvania* (Cincinnati, the Author, 1930). Another description of Conestoga wagons and wagoning is H. S. Hill, *The Conestoga Wagon* (Trenton, N.J., the Author, 1930).

CHAPTER V

THE ERA OF RAILROAD BUILDING

THE steam locomotive gave the railroad its dominant position among transportation agencies. Railways existed, however, before there were steam locomotives. Over the earliest railroads cars were drawn by horses or mules. Later, stationary engines were used to haul cars up steep inclines as was done on the Allegheny Portage Railroad. Even before locomotives were invented, however, railways were an improvement over other means of land transportation because they made use of an important mechanical principle. The resistance offered by a wheeled vehicle when propelled over smooth rails is less than that of a vehicle on the best of ordinary roads. For this reason the primitive railways, or tramways as they were called, reduced the cost of transportation. But important as this principle was, and still is, the development of steam locomotion was of much greater importance.

EARLY RAILWAYS

Tramways were commonly used in Great Britain in the eighteenth century usually for the purpose of transporting coal from the collieries. The first tramway in America is supposed to have been built in 1807 on Beacon Hill, in Boston, by Silas Whitney.¹ A number of other tramways were built in America in succeeding years. Of these the most famous was the Quincy Railroad, a road about four miles long built in 1826 from the granite quarries at Quincy to the Neponset River. The granite used in the construction of the Bunker Hill Monument was carried over this tramway. A number of other primitive railways or tramways were constructed for the purpose of carrying coal. The Mauch Chunk Railroad and the Schuylkill Railroad, both constructed about 1827, were of this variety.² Another was built by the Delaware & Hudson Canal Company in 1829 from Carbondale to Honesdale, Pennsylvania. These lines were not intended to be general carriers of freight.

The general public had little conception of the nature of railways in the twenties. In 1823 Mr. John Stevens was granted a charter by the

¹ Ringwalt, J. L., *Development of Transportation Systems in the United States* (Philadelphia, Railway World Office, 1888), p. 69.

² *Ibid.*, pp. 71-72.

State of Pennsylvania for the construction of a railroad from Philadelphia to Columbia.³ There was some reference to the project in the newspapers and one inquisitive reader wrote the editor asking: "What is a railroad?" And the editor answered: "Perhaps some other correspondent can tell." Because so little was known about railways a society was formed in Philadelphia for the purpose of finding out more about them. This society, organized in 1824, was known as "The Pennsylvania Society for the Promotion of Internal Improvements in the Commonwealth." The society sent William Strickland to England to investigate British railways, and from time to time he sent back reports of his investigations.

The Baltimore & Ohio Railroad is given credit for being the first railroad in America constructed for general transportation purposes. It was chartered by the State of Maryland in 1827; construction was begun in 1828; and a portion of the road was opened in 1830. The year 1830 may therefore mark the beginning of the railroad era in the United States. Great Britain, however, had preceded the United States in the construction of railroads. The Stockton & Darlington had been opened in 1825, and the Liverpool & Manchester in 1830, the same year that saw the opening of the Baltimore & Ohio on this side of the Atlantic.⁵

INVENTION OF THE LOCOMOTIVE

We cannot proceed further in the discussion of railroad development without reference to the development of steam locomotives. Although there had been a number of successful experiments with steam locomotion before 1829, the first practicable locomotive was George Stephenson's *Rocket* which was tried out on the Liverpool & Manchester Railroad in 1829.⁶ The first locomotive tried out on an American railway was the *Stourbridge Lion*, operated in 1829 by the Delaware & Hudson Railway and Canal Company. This locomotive was imported from England, and although it functioned successfully it was not adapted to conditions on this railroad, and was not used after the first trip. The *Tom Thumb*, constructed by Peter Cooper of New York, was

³ *Ibid.*, p. 66.

⁴ McMaster, John B., *History of the People of the United States* (New York, Macmillan), vol. V (1900), p. 140.

⁵ Daggett, Stuart, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), p. 59.

⁶ For an account of early experimentation see S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), pp. 47-51.

tried out on the Baltimore & Ohio in 1830. This engine was only a model used to demonstrate the practicability of locomotives. Another American locomotive, the *Best Friend*, was given a trial on the South Carolina Railroad in 1831. The early locomotives were small and primitive, and bore little resemblance to modern locomotives. Once the locomotive had been proved practicable, improvements were made at a rapid rate. The story of the development of the locomotive cannot be told here, although it must be recognized that without the mechanical improvements on locomotives, as well as on rolling stock and track, the railroads could never have assumed the economic importance which they have attained.

DEVELOPMENT OF THE RAILROAD NET

In 1830 there were not more than 22 miles of railroad in use in the United States. In 1944 there were 227,335 miles. Fig. 17 shows the growth in railway mileage from 1830 to 1940.

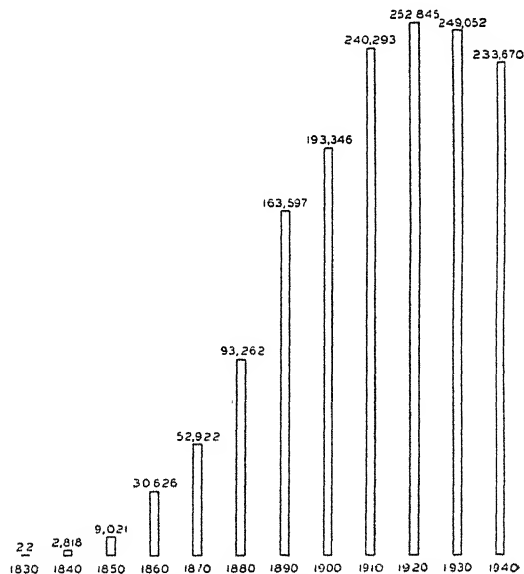


FIG. 17.—Miles of Railway in the United States by Decades.

The chart indicates that the decade of greatest expansion in the railway net was the decade of the eighties.⁷ By 1890 nearly two-thirds

⁷ The statistics of mileage are from the *Statistical Abstract of the United States*, and from the Annual Reports of the Interstate Commerce Commission.

of our railway mileage had come into existence; by 1900 more than three-fourths. The peak in railway mileage was attained in 1916, when there were 254,037 miles of railroad in the United States. Since then the mileage has declined. The mileage in 1944 was over 26,000 miles less than in 1916.

Although the number of miles of line has declined since 1916, there was a continuous growth in the miles of track until 1930, when the figure reached 429,883.⁸ In 1944 the number of miles of track was 398,437. The property investment in railroads increased year by year until 1931, when it stood at \$26,094,899,000. This figure declined to \$25,432,388,000 in 1936, but increased to a new high of \$26,631,654,000 in 1944.

THE COURSE OF RAILROAD EXPANSION, 1830-1910

We have already seen that the Baltimore & Ohio, a portion of which was opened in 1830, was the first railroad to be opened in the United States. The second was the South Carolina Railroad, otherwise known as the Charleston & Hamburg. Although this road was not completed until 1833, some of it had been constructed prior to 1830. Construction during the thirties was in the eastern States, especially New York, Pennsylvania, and the New England States. In New England, mileage was built which later became important parts of the Boston & Maine, the New York, New Haven & Hartford, and the Boston & Albany roads. The Philadelphia & Columbia and the Philadelphia & Reading were constructed in Pennsylvania. A number of roads were built in New York which later became parts of the New York Central system. Notwithstanding the very considerable activity in railroad building during this decade, the people did not then foresee the future importance of railroads. As late as 1842 the town of Dorchester, Massachusetts, instructed its representatives in the legislature to do all within their power "to prevent, if possible, so great a calamity to our town as must be the location of any railroad through it."⁹

After 1840 a number of important railway lines were completed and others were started. The Erie Railroad, extending westward from New York City through the southern part of the State, was under construction. In 1841 a through route from Boston to Albany was estab-

⁸ Figures in this paragraph are from the Interstate Commerce Commission reports.

⁹ Atkinson, B. S., *The Development of the American Railroad* (address before the Shreveport Traffic Club, 1927), p. 10.

lished. An all-rail route from Boston to New York was completed in 1849. The Michigan Central was completed during this decade and some other lines in the Middle West were being built. In 1852 the Baltimore & Ohio was extended to Wheeling on the Ohio River. A through connection between the Atlantic seaboard and Chicago was established in 1853. Other important railroads were being constructed in the Mississippi Valley in the fifties. Among these were the Illinois Central, the Mobile & Ohio, and the Hannibal & St. Joseph, which was the first railroad to span the distance between the Mississippi and the Missouri rivers.

During the Civil War, railroad building in the South and West practically ceased, but some construction took place in the North. After the war, railroad building proceeded at a rapid rate. The first transcontinental line was completed in 1869 when the Union Pacific, constructing its line westward from Omaha, and the Central Pacific, building eastward from Sacramento, were joined near Ogden, Utah. During the seventies railroad construction continued at a rapid rate notwithstanding the interruption caused by the panic of 1873. But it was the following decade, the eighties, that surpassed all others, before or since, in point of mileage constructed. More than 70,000 miles of railroad were constructed in this decade. A large portion of the mileage was in the far West, and the decade was notable for the building of transcontinental lines. Extensive mileage was constructed by the Atchison, Topeka and Santa Fe, the Southern Pacific, the Texas & Pacific, the Northern Pacific, the Oregon Railway & Navigation Company, and the Oregon Short Line Railroad. During the nineties another transcontinental, the Great Northern, was opened, but the main lines of our transportation system had been laid down, and the railroad-building era was drawing to a close. Only a few lines of major importance were constructed after 1900. Among the more important were the San Pedro, Los Angeles & Salt Lake, opened in 1905; the Pacific Coast extension of the Chicago, Milwaukee & St. Paul, opened in 1909; and the Western Pacific, opened in the same year. Railroad construction declined after 1910. There was less building between 1910 and 1920 than between 1850 and 1860. The actual reduction in railroad mileage in operation after 1916 has already been mentioned.

In the remainder of the chapter we shall consider various characteristics of the railroad-building era, particularly those of economic significance, or those which have a bearing on later problems.

RAILROADS AS TOLL ROADS

When railroads were new, it was commonly supposed that they would be operated in the manner of toll roads. Any person would be free, it was thought, to haul his own goods on the railway upon paying a toll. Individuals or common carriers could operate over the road. Provisions of early railway charters bear witness to this idea. The charter of the Boston & Providence line authorized the directors "to erect toll houses, establish gates, appoint toll gatherers and demand toll upon the road."¹⁰ A New Jersey statute provided that "no farmer belonging to this state shall be required to pay any toll for the transportation of the produce of his farm to market over the said road or roads, in his own carriage, weighing not more than one ton, when the weight of such produce shall not exceed 1,000 pounds, but the same farmer may be charged toll as for empty carriage."¹¹ Some of the earliest railroads were operated on the toll-road principle for a time, but the special type of equipment required and the difficulty of meeting and passing other users of the railway made the system of operation impracticable. The adoption of steam motive power imposed other difficulties in the way of this system of operation, and it soon came to be recognized that the railroad company must have a monopoly of transporting over its road. This at once made it clear that such competition as might exist in railway transportation must be competition between different lines and not competition between different carriers over the same road. This fact has made railroad transportation fundamentally different from any other form of transportation, except pipeline transportation.

Some of the more far-sighted individuals foresaw that this characteristic of railways would make them monopolistic in nature. "I consider a long line of railroad," wrote Benjamin White to Congress early in the thirties, "as being odious in this country as a monopoly of the carrying, which it necessarily must be," and he went on to show that anyone who acquired a boat could operate it over a canal, but a man could not operate his own vehicle over a railroad.¹² The same argument frequently appeared in the controversies over the relative merits of

¹⁰ Quoted by Cleveland and Powell in *Railroad Promotion and Capitalization* (New York, Longmans, 1909), p. 161.

¹¹ Quoted by B. H. Meyer in *Railway Legislation in the United States* (New York, Macmillan, 1903), p. 79.

¹² Haney, L. H., *A Congressional History of Railways in the United States to 1850*, Bulletin of the University of Wisconsin, No. 211 (Madison, 1908), p. 243.

canals and railroads. Railroads continued to develop, however, and the problem of railroad monopoly was left to trouble succeeding generations.

CANALS VERSUS RAILROADS

The controversy over the relative merits of canals and railroads was an important one in the thirties. Both railroads and canals had their ardent supporters. It was not until after 1850 that the railroads came to be serious competitors of the canals. Many of the earlier railroads were supplementary to the waterways. In the decade following 1860 the railroads definitely proved their superiority over canals, and the decline of the latter was rapid.

OPPOSITION OF VESTED INTERESTS

Railroad construction encountered serious opposition in the earlier decades of the construction era. If we disregard the numerous freakish objections to railroads such as are raised in opposition to any new invention, we find that much of the opposition had an economic basis. This was particularly true where vested interests were concerned. It must be remembered that millions of dollars had been spent on canals, turnpikes, and plank roads; that thousands of persons earned their livelihood by transporting persons or property over these routes; and that other thousands kept inns and taverns along the routes of trade. These persons saw their means of livelihood threatened by the new invention. Wagoners feared the direct competition which the railroads would bring. Tavern keepers saw their business going to pieces if railroads were constructed. Farmers feared the loss of markets for horses, hay, and grain. Taxpayers bethought themselves of the State debts incurred in building the canals, and foresaw the possibility of increased taxes if canal revenues were reduced. Under these circumstances it is not strange that opposition to railroads was often strong and vociferous.

PROTECTION OF EXISTING TRANSPORTATION AGENCIES

The opposition of vested interests resulted, in some instances, in the adoption of policies which were designed to protect existing transportation agencies from the competition of the new. In 1838 the Ohio legislature asked the State Board of Public Works if the construction of a railroad from Dayton to Cincinnati would injure the State by diverting traffic from the Miami Canal. The Board reported that the canal did not afford sufficient revenue to pay interest on the investment

and that it would therefore be unwise to permit the construction of a railroad which might compete with it.¹³ When a charter was granted to the Cincinnati, Hamilton, & Dayton Railroad it was stipulated that when the revenues of the State from the Miami Canal should be diminished as a result of the railroad, tolls should be paid to the State on property transported by railroad. The tolls were to be sufficient to maintain the former earnings of the canal. Other railroads in the State were subject to somewhat similar restrictions.¹⁴ New York, with its huge investment in the Erie and other canals, quite naturally sought to protect canal earnings. The charter of the Utica & Schenectady Railroad prohibited the railroad from carrying property other than the baggage of passengers. In 1844 the railroad was given permission to transport all goods during suspension of canal navigation but it had to pay the State the same toll that the State would have received had the goods been transported by the Erie Canal. The Auburn & Syracuse Railroad was permitted by its charter to carry property at any time but had to pay tolls equal to what would have been paid on the Erie Canal. The Syracuse & Utica Railroad might also carry goods at any time but had to pay tolls to the State on such property as it carried when the Erie Canal was navigable. It was not until 1851 that such restrictions were abolished in New York.¹⁵ Later the "Clinton League" was organized to protect the canals of New York. The League proposed to tax the railroads for the movement of freight in order to prevent diversion of the traffic from the canals.¹⁶ Pennsylvania also sought to protect the earnings of the canals. The charter of the Pennsylvania Railroad required the railroad company to pay a tonnage tax of five mills per mile between March and December of each year. Later the tax was reduced to three mills but made applicable throughout the year. This tax was not removed until 1861, long after the State had sold the canal to the Pennsylvania Railroad.¹⁷

¹³ Gephart, W. F., *Transportation and Industrial Development in the Middle West*, Studies in History, Economics, and Public Law, Columbia University, vol. 34, No. 1 (New York, 1909), pp. 120-121.

¹⁴ MacGill, Caroline E., *History of Transportation in the United States Before 1860* (Washington, Carnegie Institution of Washington, 1917), p. 490.

¹⁵ Stevens, Frank W., *The Beginnings of the New York Central Railroad*. (New York, Putnams, 1926), pp. 267-269, 273.

¹⁶ Hadley, A. T., "American Railroad Legislation," 75 *Harper's Magazine* 141 (1887)

¹⁷ Schotter, H. W., *The Pennsylvania Railroad Company* (Philadelphia, Allen, Lane & Scott, 1927), pp. 7-8, 47.

GOVERNMENT-OWNED RAILROADS

The railroads of the United States have, for the most part, been built as private enterprises. Though a number of the earlier railroads were built by the States, the States withdrew from the business of constructing railroads before the era of rapid railroad building began. Whether railroads should be built by the government or by private corporations was an important question in most countries when railroads were new. The question was answered differently in different countries according to the particular circumstances and conditions that existed at the time. In the United States, the possibility of the construction of railroads by the Federal Government was foreclosed by the political situation. Although the Federal Government had built the National Road and had made appropriations for other internal improvements, a sentiment had grown up that Federal participation in internal improvements was an invasion of the rights of the States. With the triumph of Jacksonian Democracy in 1828, the "States' rights" advocates had their way. As a result, when railroads appeared on the scene about 1830, the development of internal improvements was considered an affair for the States and not for the Federal Government to deal with.

When the question of a transcontinental railroad was brought up in Congress in the forties and fifties, there was some sentiment in favor of having such a road built by the National Government.¹⁸ But, as we have seen, the first transcontinental railroad was built by private corporations, although with a heavy government subsidy. Agitation for a government-owned railroad appeared again in 1874 when a committee of Congress reported in favor of the construction of one or more railroads by the Government, this time as a means of regulating the rates of privately-owned railroads and preventing monopolistic charges.¹⁹ With minor exceptions, however, the Federal Government has not built or owned railroads. The two most important exceptions are the Alaska Railroad, 470 miles long, constructed by the Government about 1916; and the Panama Railroad, the capital stock of which is owned by the United States Government.

Since it was not, in the thirties, considered within the sphere of the Federal Government to aid internal improvements, the States were the logical governmental units to engage in railroad building unless railroad construction was to be left entirely to private corporations. The States

¹⁸ Haney, L. H., *op. cit.*, ch. XXIII.

¹⁹ Senate Report, No. 307; part I, 43d Cong., 1st Sess. (1874), pp. 140-161, 242.

did, in a number of instances, engage in railroad building. This was part of the same movement that had led the States to undertake the construction of canals.

Pennsylvania, we have already seen, constructed two railroads as a part of the Pennsylvania Public Works—the Allegheny Portage Railroad and the Philadelphia & Columbia Railroad. The latter is said to have been the first railroad ever undertaken in any part of the world by a government.²⁰ The State of Illinois undertook the construction of a number of railroad lines in the thirties but by 1847 only one road had been completed. This was a road from Meredosia on the Illinois River to Springfield. The State got into financial difficulties and abandoned its scheme of State railroads. Indiana spent \$1,600,000 on a railroad from Madison, on the Ohio River, to Lafayette. The road was turned over to the Madison & Indianapolis Railroad in 1843. Michigan planned the construction of four railroads. In 1846, one of these roads was sold to the Michigan Central for \$2,000,000, which represented a loss of from \$250,000 to \$500,000. Another of the roads was sold to the Michigan Southern in the same year for \$509,000, or about half its cost. A third line was turned over to the Port Huron & Northern Michigan after about \$100,000 had been spent on the route by the State. The State of Georgia constructed the Western & Atlantic and operated the road successfully from 1851, the date of its completion, until after the Civil War. In 1890 the road was leased to the Nashville, Chattanooga & St. Louis Railroad, but it is still owned by the State of Georgia. Virginia constructed two roads, the Blue Ridge Railroad, a short line across the Blue Ridge Mountains, and the Covington & Ohio, from Covington to the Ohio River. Both of these roads came into the possession of the Chesapeake & Ohio Railroad Company after the Civil War. North Carolina, through stock-ownership, held a controlling interest in three railroads and appointed a majority of the directors. These roads were the North Carolina, the Atlantic & North Carolina, and the Western North Carolina railroads.²¹

In addition to these projects undertaken by the States, other railroads came into the hands of the State governments through the failure of private corporations which had built the roads with the aid of State

²⁰ Cleveland, F. A., and Powell, F. W., *Railroad Promotion and Capitalization in the United States* (New York, Longmans, 1909), p. 103. Unless otherwise indicated the other facts regarding State construction of railroads are taken from this source.

²¹ Brown, Cecil K., *A State Movement in Railroad Development* (Chapel Hill, N.C., University of North Carolina Press, 1928).

subsidies. In this way the State of North Carolina acquired the Raleigh & Gaston Railroad.²² Massachusetts took over the Hoosac Tunnel enterprise,²³ and Missouri acquired a number of railroads in that State which had been liberally aided from State funds.²⁴ As a rule, lines acquired in this manner were sold as soon as possible.

State building of railroads, as well as of canals, is to be explained largely by three related facts: first, the large amounts of capital required to build the projects; second, the comparatively small amount of private capital available, particularly in the newer parts of the country; and third, the fact that the corporate form of organization had not been developed extensively. It appeared that private corporations would have had difficulty in raising the necessary capital. State credit, on the other hand, was good at home and abroad; hence the States were in a position to raise the necessary funds. Under the circumstances it was quite natural for the States to undertake these projects.

The results of State construction of railroads were disappointing. The States found that railroad construction had involved them in financial difficulties; for this reason they finally withdrew from the business and disposed of the roads to private corporations, usually at a loss. North Carolina, however, owns about three-fourths of the capital stock of the Atlantic & North Carolina Railroad Company, and the State of Georgia still owns the Western & Atlantic, though these roads are not operated by the States. The burden of indebtedness created by the States in constructing internal improvements became too great, and insolvency, and in some cases repudiation, resulted after the crises of 1837 and 1847. In some instances, State participation in these undertakings was accompanied by graft, corruption, and incompetence. But this was not universally true, and the overexpansion of the period and the inherent unsoundness of the particular projects as business enterprises were more fundamental causes of failure. Many of the private railway projects of the time proved equally unsuccessful.

The financial difficulties of the States, brought about by internal improvement projects, led to the establishment of provisions in the constitutions of the States which prohibited them from engaging in such enterprises. All this happened early in the railroad-building era, that is, when only a few pioneer railways had been constructed. Now

²² *Ibid.*, p. 278.

²³ Cleveland and Powell, *op. cit.*, p. 102.

²⁴ Million, J. W., *State Aid to Railways in Missouri* (Chicago, University of Chicago Press, 1896), ch. V.

that the Federal Government and the States had successively withdrawn from direct participation in internal improvements, railroad building was left to private corporations.

There were a few instances of railway projects undertaken by municipalities. Several towns in Maine owned a controlling interest in the Knox & Lincoln Railroad, which was completed in 1872.²⁵ The city of Troy, New York, built a railroad about twenty miles in length—the Schenectady & Troy Railroad. This road was opened in 1842. The town of North Brookfield, Massachusetts, built the North Brookfield Railroad, a road only about four miles long. The Schenectady & Troy Railroad was not a financial success, but the North Brookfield Railroad was leased to the Boston & Albany on terms that enabled the town of North Brookfield to retire the debt incurred in building the road and to derive a considerable income from the road.²⁶ Another example of a municipally-owned railroad was the Western Maryland, which was largely financed by the city of Baltimore and was controlled by the city until 1904.²⁷

The most ambitious of the city-owned railroads was the Cincinnati Southern, which was built and is owned by the city of Cincinnati. This road is over three hundred miles long, and extends from Cincinnati, Ohio, to Chattanooga, Tennessee. Construction was begun in 1874 and the road was opened for traffic in 1877.²⁸ The road proved successful. It was leased to the Cincinnati, New Orleans & Texas Pacific in 1881, and this lease was renewed in 1902.²⁹ The railways built or owned by cities or towns were projected primarily for the purpose of giving some trade advantage to the communities concerned rather than for the profits of operation.

RAILROADS AND THE POWER OF EMINENT DOMAIN

In the United States the railroads, from the very beginning, have been given the power of eminent domain, that is, the power to take

²⁵ Chase, E. E., *Maine Railroads* (Portland, Me., Author, 1926), p. 62.

²⁶ Powell, F. W., "Two Experiments in Public Ownership of Steam Railroads," 23 *Quarterly Journal of Economics* 137 (1908). The North Brookfield Railroad Co. now receives no rental for the use of its properties. See *North Brookfield R. R. Co. Operation*, 212 I.C.C. 707 (1936).

²⁷ Winchester, Paul, *The Baltimore and Ohio Railroad* (Baltimore, Maryland County Press Syndicate, 1927), vol. I, p. 11.

²⁸ Hollander, J. H., *The Cincinnati Southern Railway: A Study in Municipal Activity*, Johns Hopkins University, Studies in Historical and Political Science, 12th series, Nos. 1 and 2 (Baltimore, Johns Hopkins Press, 1894), pp. 39-45.

²⁹ 65 I.C.C. 581 (1920).

private property for a public use without the owner's consent. This is a governmental power, but it may be delegated to private corporations. Under our constitutions this power may not be exercised without making "just compensation" to the owners of the property taken. The compensation to be paid, when property is taken in this way, is determined by a board of appraisers appointed for the purpose or by a court. In this way the railroad corporations are enabled to acquire rights of way and other property at fair prices.

It is to be observed that the power of eminent domain is the power to take the property of others *for a public purpose*. To take the property of one individual for the benefit of another individual would not be a valid exercise of the power of eminent domain. The question very early arose, therefore, whether property taken for the use of a privately owned railroad was being taken for a public or a mere private purpose. The public benefit to be derived from railroads was not doubted, but since the railroads were being operated for private profit it was not clear that land acquired under the power of eminent domain was being taken for a public and not a private use. The courts held, however, that the fact that the railroad was privately owned and was entitled to charge for its services did not alter the public nature of the enterprise. "Because the legislature permitted the company to remunerate itself for the expense of constructing the road, from those who should travel upon it, its private character is not established; it does not destroy the public nature of the road, or convert it from a public to a private use."³⁰ In the same case the court went on to show that the owners of the road could be prosecuted if they refused to transport a person or his property without any reasonable excuse, and the court even asserted the right of the legislature to regulate the charges of the companies. The important thing to notice in connection with these decisions is that judicial sanction of the exercise of the power of eminent domain by railroad corporations was based on the public nature of the business. Because the corporation was considered to be constructing a public highway for the people it might properly exercise the power.

SOURCES OF CAPITAL

Since capital was comparatively scarce in the United States, particu-

³⁰ *Bloodgood v. The Mohawk & Hudson Railroad Co.*, 18 Wendell (N.Y.) 9, 21 (1837). For another early case discussing fully the validity of the exercise of the power of eminent domain by railroad corporations, see *Beekman v. The Saratoga & Schenectady Railroad Co.*, 3 Paige (N.Y.) 45 (1831).

larly during the early years of railroad building, it was natural that much capital from European sources should be invested in American railroads. In the earlier years of railroad construction when the States were engaging in railroad building, and later when State bonds were being issued to subsidize private railroad corporations, State securities were sold abroad in large quantities. Stocks and bonds of railroad corporations were also sold in Europe. Investment of foreign capital in American railways was interrupted by each panic, but European interest revived with each succeeding return of prosperity. A number of American railroads were controlled by foreign interests. In others, foreign holders of stocks represented important minority groups. In 1876 about 86 percent of the stock of the Illinois Central was held abroad.³¹ Between 1890 and 1896 foreign stockholders held 75 percent of the stock of the Louisville & Nashville. The stock of other important railroads was held abroad in the following proportions: New York, Ontario & Western, 58 percent; the Reading and Pennsylvania railroads, 52 percent; New York Central & Hudson River, 37 percent; Great Northern, 33 percent; Baltimore & Ohio, and the Chicago, Milwaukee & St. Paul, 21 percent.³²

After 1898 the securities of American railroads were purchased from European holders in large quantities. From time to time since then, however, American railroad corporations have found it desirable to float bond issues abroad. The Pennsylvania, the Union Pacific, the Chesapeake & Ohio, and the New Haven, are important examples.³³

GENERAL RAILWAY INCORPORATION LAWS

All of the early railway companies received their charters directly from the legislatures by special enactment. About 1850, New York and a number of other States passed general incorporation laws under which railroad companies could organize without special legislative sanction. There were several arguments in favor of the substitution of general for special acts of incorporation. Altogether too much time of the legislatures was being taken in the consideration of applications for charters, as each session of the legislature brought requests for charters in great numbers. The practice of granting special charters, furthermore, led to a great deal of favoritism and corruption, due to the pressure of

³¹ Ripley, W. Z., *Railroads: Finance and Organization* (New York, Longmans, 1915), p. 4.

³² *Ibid.*, p. 5.

³³ *Ibid.*, pp. 8-9.

interested parties for lenient charters and special favors. In addition it seemed desirable that there should be greater uniformity in railway charters. For these reasons the practice of granting special charters was given up and general incorporation laws were enacted in all States, although some special charters were granted after the enactment of general incorporation laws.

General incorporation laws were far superior to the system of granting special charters, but the "free railway laws" had one serious disadvantage. Before the enactment of the general laws an important consideration in the granting of any charter was whether the project was for the interests of the State as a whole, and whether or not other railroads would be injured thereby. Under free railway laws, projects could be undertaken without regard to the effect on other lines, thus increasing the risks and speculative nature of railroad enterprises. In some States an attempt was made to remedy this situation by requiring a certificate of convenience and necessity from a court or from a commission before a new railroad could be constructed.³⁴ It must be admitted, however, that the existence of free railway laws was one of the several factors which contributed to the overbuilding of railroads that characterized the railroad-building era in the United States.

LOCAL AID TO RAILROADS

Although the States withdrew from direct participation in railroad building, private railroad corporations were heavily subsidized. Federal, State, and local governments joined in the granting of subsidies.

Local financial aid was of many kinds. A common form was subscription to stock of railroad companies by counties and municipalities. County and municipal subscriptions to stock of railroads aggregated more than \$91,000,000.³⁵

Loans were also made to railroad companies by cities, towns, and counties. Loans by municipalities and counties to railroads exceeded \$19,500,000,³⁶ and in addition, towns, cities, and counties purchased over \$12,000,000 of railroad bonds.³⁷ Loans to railroads were sometimes in cash, but in many cases bonds or warrants of the local govern-

³⁴ See 68 N.H. 570; 160 N.Y. 202; 227 N.Y. 248.

³⁵ Federal Coordinator of Transportation, *Public Aids to Transportation* (Washington, Government Printing Office, 1938), vol. II. The above figure is computed from Table 22, pp. 148-159.

³⁶ *Ibid.*, p. 60.

³⁷ *Ibid.*, pp. 148-159.

ment were issued to the railroad companies. When railroad bonds were purchased they were also sometimes paid for in the obligations of the local governments.

Another form of local aid was the guaranty of railroad bonds. The guaranty might extend only to the payment of interest on the bonds; or it might cover both interest and principal. Railroad bonds to the extent of nearly \$3,000,000 were guaranteed by cities and counties.³⁸

Outright donations constituted another form of financial aid. These might be donations of cash, securities, land, or of material, equipment, and labor. It has been estimated that railroads received over \$30,000,000 in cash donations,³⁹ but it is impossible to determine what proportion of this consisted of donations by county and municipal governments, and what proportion consisted of donations by private individuals, corporations, or associations. County and municipal donations of securities amounted to over \$16,000,000.⁴⁰ Donations of land by local governments to railroad companies aggregated over 2,400 acres, most of which was used for right-of-way or other carrier purposes.⁴¹

Finally, there was some exemption from taxation granted by local units of government.

Local aid to railroad companies usually resulted in the creation of public debt. When municipalities or counties purchased railroad stock, loaned money to railroads, donated cash, or purchased land to give the railroad companies, the necessary funds were obtained by borrowing. Sometimes, as we have seen, obligations of the local governments were donated to the railroad companies or paid to them in exchange for railroad stocks or bonds.

The load of indebtedness imposed upon themselves by the local governments was often burdensome in the extreme. As early as 1853 the per capita railroad debt of Wheeling was estimated as \$55, and of other cities as follows: Baltimore, \$43; Pittsburgh, \$34; St. Louis, \$30; Louisville, \$25; New Orleans, \$23; Philadelphia, \$20.⁴² Even heavier was the burden of debt at later times. The town of Watertown, Wisconsin, with a population of 7,553 persons, had a railroad debt of \$750,000, nearly \$100 per capita.⁴³ Instances were said to be not un-

³⁸ *Ibid.*, p. 61.

³⁹ *Ibid.*, p. 133.

⁴⁰ *Ibid.*

⁴¹ *Ibid.*, p. 54.

⁴² Cleveland and Powell, *op. cit.*, p. 206.

⁴³ Ripley, W. Z., *Railroads: Rates and Regulation* (New York, Longmans, 1912), p. 37.

common of municipalities and counties incurring debts in aid of railroads which exceeded the assessed value of all taxable property within the political subdivision.

The explanation of such extravagance is to be found in the dire need of transportation facilities. The people knew very well that the economic future of their communities depended upon transportation facilities and they were willing to pay almost any price for them. Railroad promoters were expert in working up the enthusiasm of the people along the lines of the proposed railroad with extravagant claims of prosperity that would come with the railroads. In addition to the improvement in the economic condition of a community that the railroads were expected to bring, hope was held out of generous dividends on railroad stocks.

To work up competition in the matter of subsidizing railroads, rival routes were sometimes surveyed. The towns and counties along the different routes were led to bid against each other for the railroad. Perhaps the communities providing the greatest subsidies would get the road, but sometimes the route had already been selected and the rival routes were for the purpose of increasing the subsidies from the communities through which the route passed. The scheme of surveying rival routes has been attempted in more recent years. In 1926 the Appalachian & Western North Carolina Railroad applied to the Interstate Commerce Commission for authority to construct a line of railroad from a point in North Carolina to a point in Tennessee. Three routes were surveyed and it was admitted that this was done in order "to develop competition for the location of the route and the maximum financial aid from the communities benefited." The Commission felt that a definite route should have been selected before its approval was sought. For this and other reasons it denied the application until a choice of routes should be made and other information presented concerning the project.⁴⁴

The enthusiasm for railroad connections can be seen in the extreme offers of aid which were sometimes made. In 1880 the Northern Pacific promised to extend its line to Superior, Wisconsin, if the city would give it a right-of-way into the city and one-third of all lands, premises, and real estate in the city. The offer was accepted.⁴⁵ Seattle offered the Northern Pacific 7,500 town lots, 3,500 acres of land, \$50,000 in

⁴⁴ 111 I.C.C. 557 (1926).

⁴⁵ Cleveland and Powell, *op. cit.*, p. 203.

money, \$200,000 in bonds, and the use of much of the waterfront for terminal purposes if the Northern Pacific would make Seattle its western terminus.⁴⁶

There was some opposition to these orgies of financial aid to railroads, but it was insufficient to stem the tide. Later on, however, when people began to feel the burden of taxes imposed to pay bonds issued to railroads, public sentiment underwent a decided change. Disillusionment over the benefits which had been anticipated, resentment at the burdens of taxation imposed, and anger for having been tricked into a policy which often lined the pockets of railroad promoters at the expense of the taxpayers led to many attempts at repudiation of the debts on the grounds that the use of the taxing power to aid private corporations was unlawful because the money was being used for a private and not for a public purpose. In the words of Judge Cooley: "The cases might almost be said to be exceptional in which municipalities, when afterwards they were called upon to meet their obligations, could do so with a feeling of having received the expected consideration."⁴⁷ But the courts generally held that the grants of aid to railroads were valid, and they forced the municipalities to pay the obligations incurred in aiding them.⁴⁸ In some cases, however, the bonds were not paid in full, but a compromise settlement was reached with the bondholders.

The policy of local subsidy to railroad corporations proved so burdensome that constitutional provisions were passed in many States prohibiting or severely restricting the granting of aid to railway corporations by local units of government. Such provisions were placed in the constitutions of California, Colorado, Connecticut, Illinois, Mississippi, Missouri, New Hampshire, Texas, Kansas, Arkansas, the Dakotas, and Utah.

STATE AID

The local governments were not alone in their policy of aiding private railway corporations. The States adopted a similar policy. A form of aid which dates from the very beginning of railroads was the granting of special privileges of various sorts to railroad corporations. The power of eminent domain was in reality such a privilege, but the

⁴⁶ Hedges, James B., *Henry Villard and the Railways of the Northwest* (New Haven, Yale University Press, 1930), p. 26.

⁴⁷ *A Treatise on Constitutional Limitations*, 8th ed. (Boston, Little, Brown & Co., 1927), vol. I, p. 465.

⁴⁸ See *Olcott v. The Supervisors*, 83 U.S. 678 (1872).

grant of this power was so universally the practice that it was hardly considered a special privilege.

Many of the early railroads were granted monopoly privileges. The Boston & Lowell was given protection from competition for a period of thirty years, and the Western Railroad was given a somewhat similar privilege by the State. The Charleston & Hamburg Railroad was given the exclusive right to construct a railroad between Charleston and Hamburg for thirty-six years.⁴⁹ The grant of monopoly privileges was characteristic of the earlier decades of railroad building, and was not a common practice in later decades.

Banking privileges were also given to railroad corporations, but this practice was confined largely to the first decade of railroad building. The idea seemed to be that profits from banking operations were more certain than from railroad operations and that the expected profits from banking would attract capital into the joint railway and banking enterprise. Subscription to stock in the bank sometimes was conditioned upon subscribing an equal amount of stock in the affiliated railroad corporation. This was the system used in Vermont in 1836 in connection with the Rutland & Whitehall Railroad. The bank, in that case, was prohibited from beginning operations until railroad construction was begun.⁵⁰

Tax exemption was another common form of aid. In a few cases tax exemption was complete. In other cases the exemption was limited to a period of years or until dividends should equal a certain amount. At least nineteen States granted tax-exemption privileges to as many as fifty-three different railroad companies.⁵¹

If we turn to the direct forms of financial aid in railway building, we find them similar to those described in connection with local aid; namely, stock subscriptions, loans, guaranty of bonds or of interest on bonds, and donations. An unusual form of aid was provided by North Carolina when it turned over gangs of convicts on favorable terms to a number of railroads. The Cape Fear & Yadkin Railroad was constructed entirely by convict labor.⁵²

A few illustrations of State aid will give some indication of the

⁴⁹ These and other illustrations are given in Cleveland and Powell, *op. cit.*, pp. 165-166.

⁵⁰ Cleveland, F. A., and Powell, F. W., *Railroad Finance* (New York, Appleton, 1912), p. 18. For other illustrations see Cleveland and Powell, *Railroad Promotion and Capitalization in the United States*, pp. 167-176.

⁵¹ Federal Coordinator of Transportation, *op. cit.*, pp. 160-162.

⁵² Cleveland and Powell, *Railroad Promotion and Capitalization*, pp. 227-228.

extent of the practice. Maryland subscribed to \$4,000,000 of the stock of the Baltimore & Ohio.⁵³ Prior to the Civil War, Virginia subscribed to the stock of railroad corporations to the extent of some \$21,000,000. Massachusetts held \$1,000,000 of the stock of the Western Railroad, and loaned over \$11,000,000 to it and to other railroads in the State. New York loaned over \$8,000,000 to railroads,⁵⁴ and Minnesota \$2,275,000. Tennessee endorsed more than \$2,000,000 of railroad bonds, loaned \$28,350,000 to railroad companies, and subscribed to over \$850,000 of railroad stock. Alabama endorsed over \$16,750,000 in railroad bonds and made loans to railroads of over \$19,000,000. These are only illustrations; the list is by no means complete. Some States made land grants to railroads, but this form of aid was limited because few States had extensive holdings of land. Maine, however, gave 600,000 acres of land to the European & North America Railroad.⁵⁵ Texas gave away for railroads and other internal improvements 32,400,000 acres.⁵⁶

Some States adopted a policy of subscribing a certain proportion of the stock of railroad projects undertaken in the States, or loaned a specified amount of money per mile of line to all railroads constructed. Ohio passed a law in 1837 under which the State would issue State bonds to every railroad in the State to the amount of one-third the capital or cost. This law came to be known as the "Ohio Plunder Law." So many schemes were undertaken under the stimulus afforded by this law that, as one writer said: "it was foreseen that the bond mill at Columbus would break down."⁵⁷ The act was repealed in 1840 before much damage had been done to State credit. Some \$717,000 of obligations were issued under this law. The Ohio Railroad accepted lands at high valuations in payment for stock—the higher the valuation the better, since for every two dollars subscribed the State would give one dollar. After getting the State funds the company proceeded to sell the lands back, accepting in payment the stock issued when the land was bought. This left the company with practically no assets but those furnished by the State.⁵⁸

⁵³ Unless otherwise indicated these illustrations are taken from Cleveland and Powell, *Railroad Promotion and Capitalization*, chapter XIII.

⁵⁴ McVey says \$9,000,000. McVey, Frank L., "State Aid to New York Railways," 7 *Social Economist* 104 (1894).

⁵⁵ Chase says 700,000 acres, *op. cit.*, p. 49.

⁵⁶ Cleveland and Powell, *Railroad Promotion and Capitalization*, p. 229.

⁵⁷ Kennedy, J. H., "The American Railroad: Its Inception, Evolution, and Results," 9 *Magazine of Western History* 44, 48 (1888).

⁵⁸ Cleveland and Powell, *Railroad Promotion and Capitalization*, pp. 233-234.

An estimate of the total amount of the direct financial aid by the States in aid of railroad construction is given in Table X.

State aid to railways was as disastrous as local aid proved to be a little later. In some cases, doubtless, the States did not regret the financial aid they had given to railways, but in the majority of instances the debts proved burdensome, and the benefits to the States were either forgotten or proved to be less substantial than had been anticipated. The fraud and corruption caused by the scramble for State aid brought its inevitable reaction. The people considered that they had been tricked by unscrupulous promoters, and when the taxes became burdensome which had been levied to pay off the indebtedness, they refused, in some cases, to pay the debts. The burden of indebtedness caused by

TABLE X
STATE AID TO RAILROAD CONSTRUCTION⁵⁹

Form	Amount
Stock subscriptions	\$40,102,267
Loans, including purchases of railroad bonds .	80,647,579
Guaranty of railroad bonds	45,543,425
Donations:	
Cash	1,575,974
Securities .	5,078,120
Land (48,883,372 acres)	47,514,638

extravagance in the subsidy policy can be seen by comparing the interest on the debts with the income of the States. The interest charge in Florida amounted to \$200,000 per year when her total revenue was less than \$100,000 per year. In 1870 interest on the debt of Virginia amounted to about \$2,000,000 while her income was less than \$3,000,000. In North Carolina the interest charges were \$700,000 while taxes yielded only a little over \$500,000. The interest on Alabama's debt was over \$500,000 when the income from taxation was only a little over \$800,000.⁶⁰

When the States repudiated their debts, there was no way to compel them to pay. It is a principle of constitutional law that a sovereign government cannot be sued in its own courts without the consent of that government; hence the States could not be sued in the State courts for failure to meet their obligations. And the Federal courts have no jurisdiction over suits to compel a State to meet its obligations since the eleventh amendment to the Constitution provides that "The Judicial

⁵⁹ These figures are taken from Federal Coordinator of Transportation, *op. cit.*

⁶⁰ These figures are taken from W. A. Scott, *The Repudiation of State Debts* (New York, Crowell, 1893), p. 216.

power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State."

The States which repudiated their debts attempted, for the most part, to justify their action by showing illegality and fraud in the issuance of the bonds. In South Carolina, \$2,000,000 in bonds were issued under an act which only authorized \$1,000,000. In Georgia, railroad bonds endorsed proved to be second mortgage bonds while the constitution provided that endorsement should be of first mortgage bonds. Such discoveries of illegality provided excuses for repudiation. In some cases the repudiation may have been justified; in most cases it was not. A difficult moral question was involved. Should the loss fall upon defrauded taxpayers, or upon bondholders who, in most cases, were innocent holders for value since they had no part in the fraud practiced upon the State? In some cases the most trivial pretexts were given for repudiation. In Arkansas, the bonds were found to have been illegally issued because at the time the legislature authorized the loans the ayes and nays had not been recorded as the constitution of the State provided.⁶¹

Resentment at the consequences of State aid to railways led to constitutional provisions prohibiting or limiting State aid to private corporations. These prohibitions, in general, came earlier than the prohibitions against local aid, and in fact led to more local aid than would have otherwise been granted.

FEDERAL AID

The earliest form of Federal aid to railways was granted under an act of Congress of 1824 which empowered the President to authorize Government surveys of roads and canals. Railroads were not mentioned in the act, but in 1825 and 1826 surveys by the Government were made for a railway and canal project which was promoted to unite the headwaters of the Kanawha and James rivers. Similar grants of assistance were made in ensuing years. The act was repealed in 1838 because it had led to logrolling and other abuses. During the period when the act was in force about sixty railway surveys were made by Government engineers.⁶²

⁶¹ The above illustrations are taken from Scott, *op. cit.*, pp. 200-201.

⁶² For further details of this form of aid, see Haney, *op. cit.*, pp. 275-283.

Another early form of financial aid by the Federal Government was the remission of duties on railway iron. Rails used on the early railroads were generally imported from England. A high tariff had been put on iron to protect the iron industry, but the duty was a burden to the railroads. In 1832 an act was passed by Congress which permitted a remission of the duties paid on railway iron if the iron was laid down within three years after importation. This act remained in force until 1843. The amount of duty remitted between 1832 and 1843 was nearly \$6,000,000. It is estimated that the benefit derived from tariff remission was about \$2,000 per mile of road constructed.⁶³

Another form of Congressional aid was the grant of rights-of-way through the public domain together with sites for depots and terminals, and the right to use timber, stone, and other materials from adjacent public lands. The first of these grants was made in 1835 to the Tallahassee Railroad Company in Florida. In 1852 a law was passed making this form of aid applicable to all railroad, plank road, and turnpike companies then chartered or to be chartered in ten years. The rights-of-way granted under this act were to be 100 feet wide.⁶⁴ A similar statute enacted in 1875 provided for grants of a 200-foot right-of-way. Under this act approximately 150 railroad companies obtained rights-of-way through public lands.⁶⁵

In 1864 Congress departed from its policy of not making loans to railroads and authorized loans to various railroads projected to complete rail routes to the Pacific Coast. Under the terms of this act the roads were to receive United States bonds in amounts varying from \$16,000 to \$48,000 per mile. The Government accepted a second mortgage on the railways as security. The beneficiaries of this act were the Union Pacific, the Central Pacific, the Kansas Pacific, the Western Pacific, the Central Branch Union Pacific, and the Sioux City & Pacific. Over \$64,600,000 in bonds were issued to these companies. Much litigation took place before the United States secured a repayment of these loans. They were eventually repaid with the exception of about \$3,700,000 of principal and interest owed by the Central Branch Union Pacific.⁶⁶

⁶³ Haney, *op. cit.*, pp. 304-317.

⁶⁴ For additional facts regarding this form of aid, see Haney, *op. cit.*, pp. 335-338, or Federal Coordinator of Transportation, *op. cit.*, pp. 48-49.

⁶⁵ Federal Coordinator of Transportation, *op. cit.*, p. 49.

⁶⁶ *Ibid.*, p. 59.

LAND GRANTS

Land grants to railroads were the most important form of Federal aid. Although the land-grant movement is usually dated from 1850, two early grants of land to the States in aid of canal building were modified by Congress to permit their use in aid of railroads. A grant to Ohio was modified in this manner in 1830, and a grant to Illinois was similarly modified in 1833.⁶⁷ The real land-grant era, however, began in 1850 with the grant to the Illinois Central. This grant was typical of the later ones although considerably more modest in extent. The Illinois Central received a right-of-way 200 feet wide, and six sections of land for each mile of road. These were to be alternate sections of land lying along either side of the road. In case any of the sections falling to the railroad had been occupied, the company could select an equal area within 15 miles of the road. In later grants the right-of-way was 400 feet wide and the number of sections was increased. Some railroads received ten sections per mile, some twenty, and some forty. No new grants were authorized after 1871. By this time opposition to the policy had grown so strong that Congress called a halt. The rapid dwindling of the public domain, and the conflict of interest between settlers and the railroads as landowners explain the change in sentiment.

In all, 89 separate grants were made, 17 of which were later forfeited for failure to carry on the construction work, leaving 72 grants under which land was transferred.⁶⁸ In 1939 there were still seven of these grants which had not been finally adjusted and closed.⁶⁹ Some idea of the magnitude of these grants to individual railroads is shown by the acreage received by the following railroads or predecessor companies: Chicago, Burlington & Quincy, 3,200,000 acres; Illinois Central, 4,600,000; Chicago & North Western, 7,400,000; and Union Pacific, 19,000,000.⁷⁰ The largest grant was to the Northern Pacific, which amounted to over 41,000,000 acres.⁷¹

The total acreage patented to railroad companies under these grants was over 130,000,000 acres. The lands granted comprised a substantial portion of the area of the States in which the grants lay. Approximately

⁶⁷ Orfield, M. N., *Federal Land Grants to the States with Special Reference to Minnesota*, University of Minnesota Studies in the Social Sciences, No. 2 (Minneapolis, 1915), p. 4.

⁶⁸ U.S. Department of the Interior, General Land Office, *Information Concerning Land Grants for Roads, Canals, River Improvements and Railroads* (Washington, 1940), p. 3.

⁶⁹ *Ibid.*, p. 6.

⁷⁰ Federal Coordinator of Transportation, *op. cit.* pp. 107-111.

⁷¹ *Ibid.*, p. 111.

one-ninth of Louisiana, one-eighth of California, one-fifth of Wisconsin, Iowa, Kansas, North Dakota, and Montana, and one-fourth of Minnesota and Washington were thus given to railroad companies. The total area represents an expanse of land equal in size to Michigan, Wisconsin, Illinois, Indiana, and nearly half of Ohio.

Some of the lands granted to the railroads were disposed of as soon as possible and the proceeds used for construction purposes. In other cases, the lands were held for future increases in value. Sometimes the lands were mortgaged in order to raise funds for railroad building. The Illinois Central Railroad disposed of part of its land as soon as possible, but about two million acres were mortgaged for about \$8.00 per acre. Since the Government lands were being sold at a lower figure—at a minimum price of \$2.50—it was necessary for the Illinois Central to hold its mortgaged lands until most of the Government lands had been sold before it could hope to sell them for enough to cover the mortgage. It was not until 1856 and 1857 that efforts were made to dispose of the land rapidly. By 1874 most of it had been sold.⁷² A number of railroad companies still hold lands, either directly or through subsidiaries, which they acquired under the Congressional grants.

It is often alleged that the land grants cost the Government nothing because the value of the alternate sections which the Government retained were doubled in value. Thus the lands along the line of the Illinois Central had been on the market at \$1.25 per acre and did not sell readily. When the Government made its grant to the Illinois Central it raised the price of the remaining lands to \$2.50 per acre, and the Government got as much for the half as it had formerly asked for the whole. The argument that the land grants cost the Government nothing is fallacious. It assumes that the railroads would not have been built except for the land grants. The most that can be claimed for the land grants is that they hastened the building of the railroads, and in the case of some grants even this is disputed. Eventually the necessary railroads would have been built and the Government could have sold the whole instead of the half at \$2.50 per acre. Or, if the Government had preferred, it could have sold the lands at the old price thus giving the settlers the benefit of the increased values due to railroad construction.

The value of the lands at the time that they were granted may be

⁷² Brownson, Howard G., *History of the Illinois Central Railroad to 1870*, University of Illinois Studies in the Social Sciences, vol. I, Nos. 3 and 4 (Urbana, 1915), pp. 118-119, 136, 139.

estimated from the price received from the sale of Federal public lands during this period. The Federal Coordinator of Transportation found that the average proceeds from the sale of public lands by the Government from 1851 to 1871 was 97.2 cents per acre. On this basis the value of the lands granted by the Government was approximately \$130,000,000.⁷³

How much benefit did the railroads derive from the land grants? This question cannot be answered definitely, but it is clear that the grants were of great value to some of the railroads, while to others the lands netted much less than had been expected. It must be remembered that the Government lands were often on the market at \$1.25 or \$2.50 per acre, and this limited the amount that the railroads could get for their lands unless they waited until the Government lands were sold. As we have seen the Illinois Central followed the latter policy, and so did the Chicago & North Western. It was found from a study of the records of sales of Government lands and of railroad lands in Iowa along the line of the Chicago & North Western, that the sale of railway land followed the Government sales by twenty to twenty-five years.⁷⁴ Prices received by the railroads for their land varied greatly. The Federal Coordinator of Transportation found that the average gross receipts received by the railroads from the sale of lands granted under State and Federal land grants were \$3.42 per acre.⁷⁵ The net proceeds, after paying expenses of administration and sale, including taxes, averaged \$2.635 per acre.⁷⁶ An estimate by the Board of Investigation and Research, which was set up in 1940 to investigate various transportation problems, has placed the actual net proceeds from the sale of lands received under the Federal grants at more than \$380,000,000.⁷⁷ If the value of the lands still held by the railroads is added to this figure, the total value of the land grants to the railroads up to December 31, 1941, was over \$440,000,000.⁷⁸ These figures do not include large profits which have accrued, or will accrue, to some railroads as a result of sales of land by subsidiary or affiliated companies to which their original holdings were transferred.

⁷³ Federal Coordinator of Transportation, *op. cit.*, p. 36.

⁷⁴ Hibbard, B. H., *A History of the Public Land Policies* (New York, Macmillan, 1924), p. 258.

⁷⁵ Federal Coordinator of Transportation, *op. cit.*, p. 38.

⁷⁶ *Ibid.*

⁷⁷ *Land Grants to Railroads and Related Rates* (Washington, mimeographed, 1944), p. 25.

⁷⁸ *Ibid.*, p. 38.

The receipts from some of the land grants represented a substantial proportion of the original cost of the railroad. According to one estimate, the receipts from the Illinois Central grant were six-sevenths of the first cost of the road, and the receipts of the Northern Pacific from land sales were 194 percent of the cost of the road.⁷⁹ This estimate is apparently based on gross receipts and not on net receipts from the sales. If net figures were taken the percentages would be somewhat lower, but it is clear that they would be a substantial proportion of the cost of the road in the first case, and much more than the cost of the road in the second case.

In return for the railroad grants, the Government secured certain financial benefits. Some land was sold at higher prices than would have been received, but not higher than *could* have been received later; and much land was sold sooner than it would have been, had it not been for the grants. The Government also derived benefits from the grants in reduced transportation charges on mail, troops, and Government property. The grants provided that mail should be carried on the land-grant railroads at such rates as should be fixed by Congress. In practice this has meant at 80 percent of the regular rates. Usually the grants required that over the land-grant railroads troops and Government property should be transported "free from all toll or other charge." The phrase quoted, however, does not mean what might be supposed. In a five-to-four decision in 1877, the United States Supreme Court held that no charge or "toll" should be levied for the use of the road, but that a charge might be levied for transporting the troops or property over the road.⁸⁰ For this reason the rates charged the Government by the land-grant roads were generally 50 percent of the regular charges.

The savings to the Government through the reduced-rate provisions of the land grants, together with voluntary equalization of rates by competing non-land-grant railroads, were estimated by the Federal Coordinator of Transportation to have amounted to \$138,700,000 up to June 30, 1934. The rapid expansion of Government activity, particularly since 1932, greatly increased the amount of property entitled to Government rates. It was estimated that more than 138 Government agencies, some of them shipping large quantities of freight like the Tennessee Valley Authority, the Public Works Administration, the Federal Surplus Commodities Corporation, and the Commodities Pur-

⁷⁹ Hibbard, *op. cit.*, pp. 257, 260.

⁸⁰ *Lake Superior & Mississippi R.R. Co. v. United States*, 93 U.S. 442.

chase Section of the Agricultural Adjustment Administration, were entitled to land-grant rates.⁸¹ It was estimated that in 1937 alone the reduction in rates on Government property entitled to the 50-percent rates amounted to about \$7,000,000.⁸² As a means of financial aid to the railways Congress, in 1940, relieved the land-grant railroads of the obligation to transport Government property and mail at reduced rates. The transportation of persons or property for the military or naval establishments, however, was still to be performed by land-grant railroads at the lower rates.⁸³

Notwithstanding the elimination of land-grant deductions on non-military traffic in 1940, the volume of traffic entitled to deductions increased enormously as a result of the war. An official estimate placed the amount of the land-grant deductions for the fiscal year ended June 30, 1943, at \$240,000,000, and this sum did not include the deductions on "lend-lease" materials and on materials used in the emergency cargo-fleet construction which are claimed by the Government but disputed by the carriers.⁸⁴ The total of all land-grant deductions, including voluntary equalization of rates by competing railroads, from the time of the land grants to June 30, 1943, was estimated to be \$580,000,000.⁸⁵ It will be noted that this sum is several times the value of the land grants at the time they were made, and that it exceeds the sums derived by the railroads from the grants. In 1945 Congress finally relieved the land-grant railroads from any further obligation to transport persons and property for the military and naval establishments at the reduced rates.⁸⁶ Under this statute land-grant rate reductions ceased on October 1, 1946.

CONCLUSIONS AS TO RAILROAD SUBSIDIES

We have seen that the amount of financial aid given by the Federal, State, and local governments to railroad companies was enormous. The Federal Coordinator of Transportation estimated the total amount of public aid for railroad construction at \$1,282,000,000.⁸⁷

⁸¹ Transportation Association of America, *A National Transportation Program*, Supplement No. 2, p. 21.

⁸² *Immediate Relief for Railroads*, 75th Cong., 3d sess., House Doc. No. 583 (1938), p. 32.

⁸³ Sec. 321 of Transportation Act of 1940.

⁸⁴ Board of Investigation and Research, *Land Grants to Railroads and Related Rates* (Washington, mimeographed, 1944), p. 42.

⁸⁵ *Ibid.*

⁸⁶ Public Law 256—79th Cong.

⁸⁷ *Public Aids to Transportation* (Washington, Government Printing Office, 1940), vol. I, p. 19.

If we summarize the effects of railroad subsidies, local, State, and Federal, we find the following results. First, the subsidies accomplished the purpose for which they were intended. They stimulated railroad building and brought about a more rapid expansion of the railway net. In some cases, railroads were probably constructed that would not have been built otherwise, and in many more cases railroads were built sooner than they would have been without the financial aid provided. A second consequence of railroad subsidies follows from the first. The undeveloped West was settled more rapidly than it could have been otherwise.

But the subsidy policy had other results, results which were not anticipated. The subsidies offered for railroad building by a generous public constituted rich prizes that attracted irresponsible and dishonest schemers into the field of railroad construction. As a result, there was much fraud and corruption in connection with the granting of subsidies. A second result of the subsidy policy was the overexpansion of railroad facilities. Many projects were undertaken which, at the time, were not economically justified. There was not traffic enough to support them. The epidemic of railroad failures which afflicted the country is traceable, in part, to the policy of railroad subsidy. These bankruptcies which wiped out small investors, and left cities, counties, and States holding worthless railroad stocks and bonds, increased the anti-railroad feeling which appeared shortly after 1870. The overexpansion of railroad facilities and the rapid settlement of the country were also factors in the situation which brought about the agricultural depression in the seventies and provided the basis for the Granger movement, which subjected the carriers to regulation.

CONSTRUCTION COMPANIES

One more feature of the railroad-building era should be noted since it plays an important part in explaining the overbuilding that occurred. This was the use of so-called "construction companies" in building the railroads. A construction company is a company standing between the railroad company and the contractors who actually do the work of construction. The construction company seems originally to have been a device to permit the issuance of stock nominally at par but actually below par. Railroads were more or less speculative undertakings, and it was thought to be difficult, or impossible, for the companies to dispose of their stock at par to secure funds for construction

purposes.⁸⁸ In some cases, the law prohibited the issuance of stock below par. In other cases, the issuance of stock for less than par was inexpedient because, in case of the failure of the railroad, the stockholders were held liable for the difference between the par value of their shares and the price at which they had been issued. This position of the courts was based on the theory that the share capital of a company was security for debts of the company. The liability of the shareholders, however, did not extend to third parties. In other words, if the original shareholder sold his shares to another, the latter was not liable for any additional payments even though the stock had been issued for less than par. By use of the construction company the above difficulties were overcome. The railroad company would make a contract with the construction company for the construction of a certain number of miles of road at a certain price per mile, payable in stocks and bonds at par. The contract price, however, would be high enough to enable the construction company to sell the securities at a discount and still realize enough to defray the actual costs of construction and leave it a profit. The intervention of the construction company made the persons who purchased the stock from the construction company third parties and hence not liable for any additional sums in case of the failure of the railroad, and what is more important, the railroad could say that the stock had been issued at par.

The evils of construction company finance, however, did not arise from this type of construction company, but from the "inside construction company." The inside construction company was one organized by "insiders," usually directors of the railroad company, who would vote themselves, as a construction company, profitable contracts for the construction of the road. The higher the price, the greater would be the profits of the insiders at the expense of the railroad company. Such inside construction companies usually saw to it that they received all the land grants, all the State and local bonds offered as subsidies, and all of the railroad bonds and stock that could be successfully unloaded on the public, in return for constructing the railroad. Not all railroads were constructed by such methods, but the illustrations are all too abundant, and in the sixties and seventies it was considered to be the

⁸⁸ It may be questioned whether it was necessary for railway companies to issue stock below par. The stockholder has only a proportional interest in the corporation, and this fractional share is the same whether stock is issued at par, or a larger number of shares is issued at less than par. But the common financial practice was to issue stock at less than par.

general practice. The Logan, Crawfordsville & South Western Railroad voted all its municipal subsidy bonds, capital stock, and bonds to the director-contractors. The road actually cost about a million dollars, while \$4,000,000 in securities were issued.⁸⁹ The Gilman, Clinton and Springfield Railroad was built for \$1,500,000, but the construction company received securities in the amount of \$3,998,000.⁹⁰ The West Shore Railroad was constructed by an inside construction company known as the North River Construction Company. It left the railroad company nearly bankrupt and the insiders rich.⁹¹ One of the most notorious of the inside construction companies, because it besmirched members of Congress, was the Credit Mobilier which constructed the Union Pacific. "The members of it are in Congress," wrote Charles Francis Adams, Jr., in 1869, "they are trustees for the bondholders, they are directors, they are stockholders, they are contractors; in Washington they vote the subsidies, in New York they receive them, upon the Plains they expend them, and in the Credit Mobilier they divide them."⁹² As a result, the capitalization of the Union Pacific was nearly double the cost of construction. If we take the value of the securities issued to the construction company at their market values, the cash profits of the Credit Mobilier were over \$23,000,000, according to the report of the Congressional committee which investigated the matter.⁹³ Construction companies which built the Central Pacific Railroad also yielded large profits to the promoters of the project.

The profits accruing to inside construction companies did not have a magic origin. Everybody concerned, except the insiders, suffered because of them. The bonds usually represented the real cost of the road, and the bondholders, therefore, were taking a greater risk than they probably would have voluntarily assumed. Stockholders were defrauded because the stock represented very little, if any, equity in the property. The communities which had subsidized the roads were often left holding worthless stock or inadequate liens upon the railroad property.

Several results of construction company financing should be noted. In the first place, it left the railroads with an inflated capitalization and an inflated book value. The impossibility of paying a return upon such an inflated capitalization often resulted in receiverships and reorganiza-

⁸⁹ Cleveland and Powell, *Railroad Finance*, p. 62.

⁹⁰ *Ibid.*

⁹¹ "The West Shore Enterprise," 11 *Bradstreets* 274 (1885).

⁹² "Railroad Inflation," 108 *North American Review* 130, 148 (1869).

⁹³ House Rep. No. 78, 42d Cong., 3rd Sess. (1873), p. xv.

tion, with their attendant losses to security holders. In the second place, the use of construction companies contributed to the tendency, already noted, for overexpansion of railroad facilities. Some railroads were built, not for the profits of operation, but for the profits of construction. Under such conditions it was inevitable that railroads should be built without regard to the economic merits of the undertaking. A third result of construction company financing was that it led to poor standards of construction. The cheaper the construction, the greater were the profits of the insiders. The directors of the road, who secured the profits, were not inclined to insist on proper standards.

SELECTED REFERENCES

The best general material on early railroad history is in J. L. Ringwalt, *Development of Transportation Systems in the United States* (Philadelphia, Railway World Office, 1888), and Caroline E. MacGill, *History of Transportation in the United States Before 1860* (Washington, Carnegie Institution of Washington, 1917). Brief descriptions of the course of railroad development may be found in W. Z. Ripley, *Railroads: Rates and Regulation* (New York, Longmans, 1912), ch. I; Eliot Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. III; Sidney L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), chs. IV-VII; and Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. IV; Julius H. Parmelee, *The Modern Railway* (New York, Longmans, 1940), ch. III. An interesting historical treatment of railroads is J. H. Kennedy, "The American Railroad: Its Inception, Evolution, and Results," in volumes 7 to 11 of *The Magazine of Western History* (1888-1890). For an account of locomotive development see R. H. Thurston, *A History of the Growth of the Steam Engine* (New York, Appleton, 1878), ch. IV; and for the evolution of rail and track see Elfreth Watkins, "Development of the American Rail and Track," in *Annual Report of the Board of Regents of the Smithsonian Institution*. House Misc. Doc. No. 224, 51st Cong., 1st sess., vol. 21, p. 651 (1889).

Valuable information can be obtained from the numerous histories of individual railroads. These histories range from brief pamphlets and magazine articles to detailed studies of one or more volumes. The list of such histories is too long for listing here. Brief popular sketches of important railroad lines may be found in R. S. Holland, *Historic Railroads* (Philadelphia, Macrae Smith Co., 1927). The history of the western railroads is popularly and interestingly told in R. E. Riegel, *The Story of Western Railroads* (New York, Macmillan, 1926). A standard authority on early railroad history in the South is U. B. Phillips, *A History of Transportation in the Eastern Cotton Belt to 1860* (New York, Macmillan, 1913). A thorough and scholarly history of New England railroads is Geo. P. Baker, *The Formation of the New England Railroad Systems* (Cambridge, Harvard Univ. Press, 1937). There is also much information on New England railroad history in Thelma M. Kistler, *The Rise of Railroads in the*

Connecticut River Valley. Northampton, Smith College Studies in History, vol. 23 (1938). For a history of New Jersey railroads see W. J. Lane, *From Indian Trail to Iron Horse; Travel and Transportation in New Jersey; 1620-1860* (Princeton, Princeton Univ. Press, 1939), chs. 11-13.

There is interesting material on early opposition to railroads in T. W. Van Metre, *Early Opposition to the Steam Railroad* (New York, Columbia Univ. School of Business, n.d.).

The best account of State-owned railroads in the United States is in F. A. Cleveland and F. H. Powell, *Railroad Promotion and Capitalization in the United States* (New York, Longmans, 1909), ch. VI. Individual examples of municipally owned projects are described in J. H. Hollander, *The Cincinnati Southern Railway*, Johns Hopkins University Studies in Historical and Political Science, 12th series, Nos. 1 and 2 (Baltimore, Johns Hopkins Press, 1894), and F. W. Powell "Two Experiments in Public Ownership of Steam Railroads," 33 *Quarterly Journal of Economics* 137 (1908).

On sources of railroad capital the best general account is in W. Z. Ripley *Railroads: Finance and Organization* (New York, Longmans, 1915), pp. 1-10.

An account of State and local aid to railroad corporations is to be found in Cleveland and Powell, *op. cit.*, chs. XII, XIII, and XIV. The most comprehensive accounts of public aid to railroads are Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. II (Washington, Government Printing Office, 1938); and Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong. 1st sess., House Doc. No. 159 (1944), ch. III.

Much information about land grants may be found in Federal Coordinator of Transportation, *op. cit.*, and in Board of Investigation and Research, *op. cit.* The literature relating to land grants is very extensive. See particularly J. B. Sanborn, *Congressional Grants of Land in Aid of Railways*, Economics, Political Science and History Series, Vol. 2, No. 3 (Madison, 1899). A brief account of land grants is in B. H. Hibbard, *A History of the Public Land Policies* (New York, Macmillan, 1924), ch. XIII. For recent literature on the subject see Robert S. Henry, "The Railroad Land Grant Legend in American History Texts," 32 *Mississippi Valley Historical Review* 171 (1945). For criticism of Henry's article see "Comments on 'The Railroad Land Grant Legend in American History,'" 32 *Mississippi Valley Historical Review* 557 (1946). For an account of the reaction against land grants and efforts to recover unearned grants see David M. Ellis, "The Forfeiture of Railroad Land Grants, 1867-1894," 33 *Mississippi Valley Historical Review* 27 (1946).

Construction company finance is described in W. Z. Ripley, *Railroads: Finance and Organization*, pp. 14-18, and in F. A. Cleveland and F. W. Powell, *Railroad Finance* (New York, Appleton, 1912), pp. 59-72. A severe arraignment of the practice is C. W. Hassler, "Railroad Rings and Their Relation to the Railroad Question of the Country" (paper read before the American Social Science Association, 1876). The Credit Mobilier affair is described officially in the report of the Wilson committee, House Report No. 78, 42d Cong. 3d sess. (1873). A defense of the Credit Mobilier is J. B. Crawford, *The Credit Mobilier of America* (Boston, C. W. Calkins & Co., 1880). Other summaries

of the episode are J. P. Davis, *The Union Pacific Railway* (Chicago, S. C. Griggs & Co., 1894), ch. VI; Henry K. White, *History of the Union Pacific Railway* (Chicago, University of Chicago Press, 1895), ch. III; and N. Trottman, *History of the Union Pacific* (New York, Ronald Press, 1923), ch. II. The construction companies which built the Central Pacific are described in Stuart Daggett, *Chapters on the History of the Southern Pacific* (New York, Ronald Press, 1922), ch. IV.

CHAPTER VI

THE RAILROAD SYSTEM OF THE UNITED STATES

WE HAVE described some of the outstanding features of the period during which the railroads of the United States came into existence. We must now pause to get a picture of the railroad system which was thus brought into being.

MILEAGE

The railroad system of the United States consisted of 227,335 miles of line in 1944.¹ The number of miles of track, however, greatly exceeds the miles of line. The miles of track operated by the line-haul railways of the United States was 398,437 in 1944.² This was classified as follows:

	Miles
First main tracks	240,215
Second or additional main tracks	41,178
Yard tracks and sidings	117,044

GEOGRAPHICAL DISTRIBUTION OF RAILWAYS

The network of railroad lines is shown in Fig. 18. A glance at the map reveals that the railway mileage is very unequally distributed throughout the country. The lines are thickest in the densely populated and industrialized sections, and thinnest in the sparsely populated areas of the West. The density of railways can be shown by figures which give the miles of railway per 100 square miles of area. In 1943 the greatest density of railway mileage was in New Jersey with about 26 miles of line per 100 square miles. Pennsylvania ranked second, with 22 miles per 100 square miles. At the other extreme was Nevada, with 1.7 miles of line per 100 square miles of area, and Arizona, with 1.9 miles. The railroad density for each of the States is shown in Table XI. For the United States as a whole there are 7.58 miles of line per 100 square miles of area.

¹ Interstate Commerce Commission, *Annual Report*, 1945, p. 133.

² *Ibid.* The figure includes some duplication since trackage rights are included.

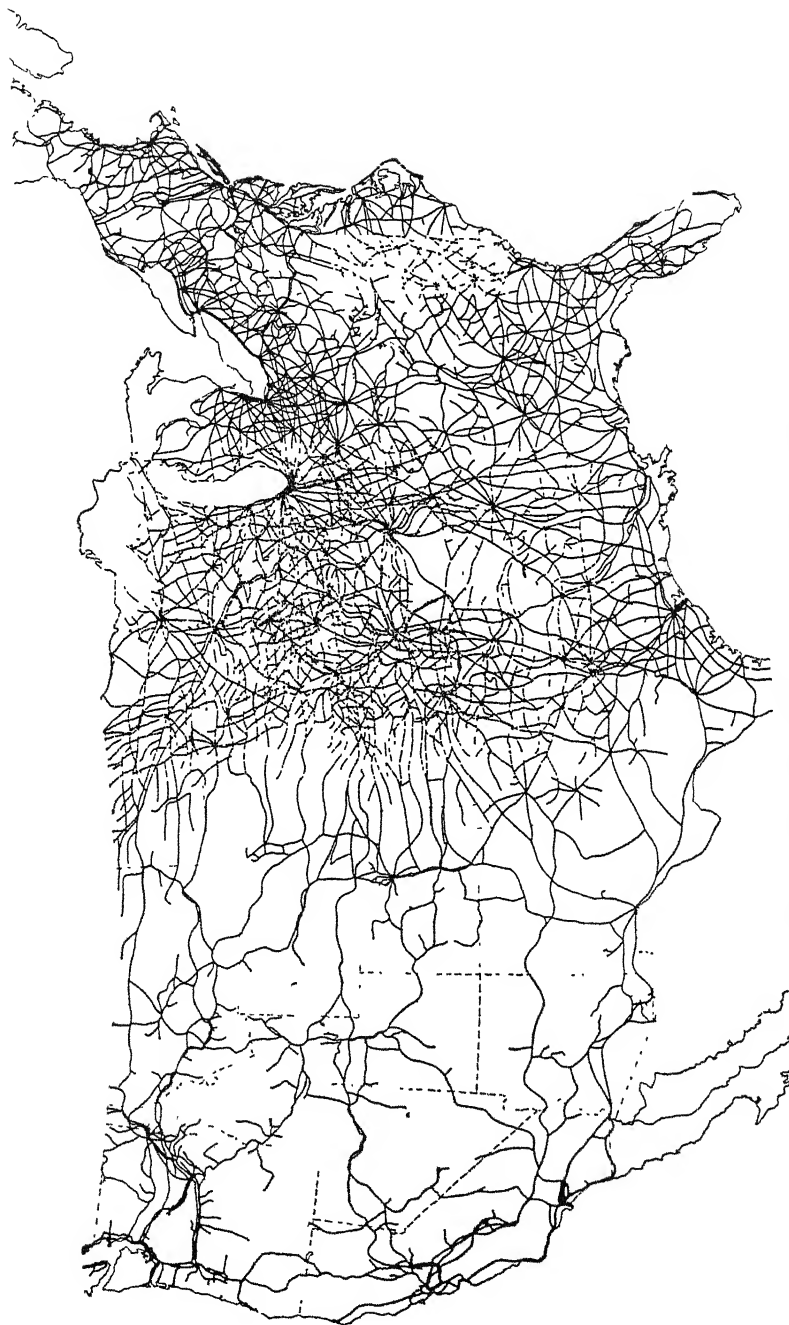


FIG. 18.—The Railroad Net of the United States, 1942.³

³ From Association of American Railroads, *Railroads in This Century* (Washington, Association of American Railroads, 1944), p. 2.

TABLE XI

RAILWAY MILEAGE AND RAILWAY DENSITY BY STATES⁴

State	Miles of Railroad	Miles of Line per 100 Sq. Mi.	State	Miles of Railroad	Miles of Line per 100 Sq. Mi.
Alabama.....	4,906	9.5	Nebraska.....	5,877	7.6
Arizona.....	2,215	1.9	Nevada.....	1,828	1.7
Arkansas.....	4,383	8.3	New Hampshire..	956	10.3
California.....	7,524	4.8	New Jersey.....	2,070	26.4
Colorado.....	4,450	4.3	New Mexico.....	2,598	2.1
Connecticut.....	875	17.5	New York.....	7,664	15.4
Delaware.....	295	14.3	North Carolina..	4,628	8.8
Florida.....	5,010	8.6	North Dakota..	5,262	7.4
Georgia.....	6,215	10.6	Ohio.....	8,435	20.5
Idaho.....	2,742	3.3	Oklahoma.....	6,018	8.6
Illinois.....	11,777	20.9	Oregon.....	3,383	3.5
Indiana.....	6,857	18.9	Pennsylvania..	10,088	22.2
Iowa.....	8,906	15.8	Rhode Island...	189	15.6
Kansas.....	8,479	10.3	South Carolina..	3,349	10.8
Kentucky.....	3,534	8.7	South Dakota..	3,988	5.2
Louisiana.....	4,292	8.8	Tennessee.....	3,503	8.3
Maine.....	1,862	5.6	Texas.....	15,865	5.9
Maryland.....	1,328	12.6	Utah.....	1,908	2.2
Massachusetts...	1,745	21.1	Vermont.....	915	9.5
Michigan.....	7,176	12.3	Virginia.....	4,205	10.3
Minnesota.....	8,371	10.0	Washington...	5,301	7.8
Mississippi.....	3,813	8.1	West Virginia...	3,763	15.6
Missouri.....	6,939	10.0	Wisconsin.....	6,540	13.0
Montana.....	5,105	3.5	Wyoming.....	2,008	2.0

MAJOR ROUTES AND SYSTEMS

The railroad map of the United States as shown in Fig. 18 does not reveal any very distinct routes of traffic except in the far west. But if only the main lines of some of the more important railroads are drawn on a map, certain major traffic routes become observable. The map in Fig. 19 attempts to show these routes.

Trunk-Line Route.—Extending from Chicago and St. Louis in the Middle West to the Atlantic seaboard are the Trunk-Line railroads. The Trunk-Line route is served by the New York Central which extends from Chicago to New York via Albany. Subsidiary to the New York Central is the Cleveland, Cincinnati, Chicago & St. Louis—the Big Four—which extends from St. Louis to Cleveland. Another subsidiary of the New York Central is the Michigan Central which has a line from Chicago to Buffalo. The section from Detroit to Buffalo is in Canada, running north of Lake Erie. The Boston & Albany is virtually an extension of the New York Central line. Both the Pennsylvania Rail-

⁴ Miles of railway from I.C.C., *Statistics of Railways*, 1942. Miles of line per 100 square miles computed from gross areas as shown in *Statistical Abstract of the United States*, 1942.

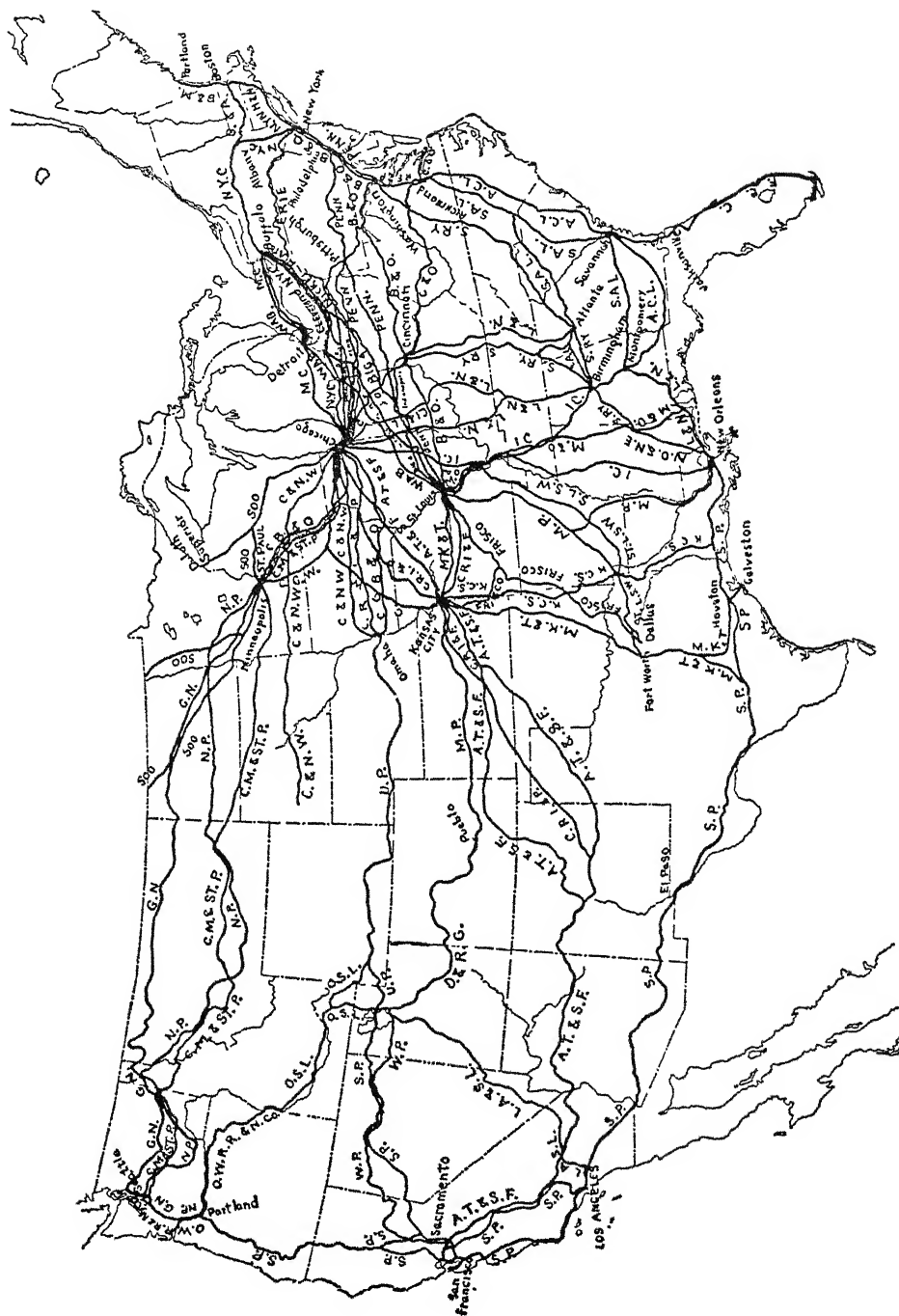


FIG. 19.—Major Rail Routes in the United States.

road and the Baltimore & Ohio have lines from St. Louis and Chicago and serve the ports of Baltimore, Philadelphia, and New York. In addition to these lines, mention should be made of the Erie from Chicago to New York, the Chesapeake & Ohio from Chicago to the mouth of Chesapeake Bay, the Nickel Plate from Chicago and St. Louis to Buffalo, and the Wabash from St. Louis to Buffalo.

The Trunk-Line route is the busiest route in the United States. Raw materials and coal move eastward over this route in large volume, and manufactured articles move westward. Much of the export grain of the United States moves to Atlantic ports over this route.

Atlantic Coast Route.—The Atlantic Coast route extends from New England and New York to the South between the Atlantic Ocean and the Appalachian Mountains. The route may be considered to terminate at Atlanta, Birmingham, and Montgomery, or to extend further in a southwesterly direction to New Orleans. In a geographical sense the route continues from Savannah along the Coast to Florida City, Florida, but this part of the route is less important from a traffic standpoint than the branch of the route that bears westward to Atlanta, Birmingham, and Montgomery. The northern part of the route is served by a number of connecting lines. The Boston & Maine has lines from Portland to Boston, and the New York, New Haven & Hartford from Boston to New York. Both the Pennsylvania and the Baltimore & Ohio have lines from New York through Philadelphia and Baltimore to Washington. The Southern Railway extends from Washington to Atlanta and Birmingham. The Richmond, Fredericksburg & Potomac is an important link in the route as it connects Washington and Richmond. From Richmond both the Seaboard Air Line and the Atlantic Coast Line extend into the South.

Manufactured articles move into the South from the North over this route. Cotton, lumber, and fresh fruits and vegetables move north in large volume.

Chicago-Southeast Route.—The map on page 124 reveals a route extending from Chicago in a southeasterly direction to Atlanta and other southern points. With the exception of the Illinois Central, which has a line from Chicago to Birmingham, the route is broken at the Ohio River. From Chicago to the Ohio River a number of rail lines are available. The map shows three of these lines: the Chicago & Eastern Illinois; the Chicago, Indianapolis & Louisville; and the line of the Chesapeake & Ohio from Chicago to Cincinnati. The routes are com-

pleted south of the Ohio River by the Louisville & Nashville and the Southern.

Northbound over this route move the products of the South—fruit, vegetables, cotton, and lumber. Southbound the traffic consists largely of grain and manufactured products.

Mississippi Valley Route.—The Chicago-Southeast route merges into the Mississippi Valley route. The line of the Illinois Central from Chicago to New Orleans is one of the major carriers on this route. Other carriers serving the Mississippi Valley route are the Gulf, Mobile & Ohio running from St. Louis to Mobile, and the line of the Missouri Pacific extending from St. Louis to New Orleans along the west side of the Mississippi River.

Southward over the Mississippi Valley route move grain and manufactured products. Northbound move the products of the South and many products imported from South and Central America, especially bananas and other tropical fruit, coffee, and sugar.

Granger Route.—From the West a large number of lines converge upon Chicago and St. Louis. These are the roads serving the Granger route. Some of the transcontinental lines likewise extend through this territory. Important Granger lines are the Chicago, Burlington & Quincy; the Chicago & North Western; and the Minneapolis, St. Paul & Sault Ste. Marie. The Granger roads serve the grain-growing section of the United States, hence one of the most important items of traffic is grain. The movement is eastward to the primary grain markets. Manufactured products move into the agricultural sections over the same roads.

Southwestern Route.—From Kansas City and St. Louis a number of lines extend in a southerly and southwesterly direction to Texas and the Gulf of Mexico. The route is served by the St. Louis Southwestern; the Missouri Pacific; the St. Louis-San Francisco; the Missouri-Kansas-Texas; the Kansas City Southern; and the Chicago, Rock Island & Pacific; and by a number of lesser lines. This route is also served by the Atchison, Topeka & Santa Fe, one of the principal transcontinental lines.

Grain, cotton, fruits and vegetables, and petroleum products move from the southwest over this route, while manufactured articles move in from the north and east.

Northern Transcontinental Route.—West of the Granger and Southwestern routes the lines of railroad are fewer and farther apart. Here

are the transcontinentals which extend to the Pacific Coast. On the eastern end many of the transcontinental lines extend through the territory served by the Granger and Southwestern lines. The three carriers serving the Northern Transcontinental route are the Great Northern; the Northern Pacific; and the Chicago, Milwaukee, St. Paul & Pacific. All three of these have their western termini on Puget Sound. The Chicago, Milwaukee, St. Paul & Pacific extends to Chicago, but the other two lines terminate at Minneapolis and St. Paul on the eastern end, although they make use of the Chicago, Burlington & Quincy for an entrance into Chicago. Nearly all the stock of the Burlington is owned jointly by the Great Northern and the Northern Pacific.

Central Transcontinental Route.—The Union Pacific is the largest system serving the Central Transcontinental route. Its lines extend west from Omaha. In Wyoming a branch of the system goes off to the northwest via the Oregon Short Line and the Oregon-Washington Railroad & Navigation Company, both subsidiaries of the Union Pacific. This takes the Union Pacific to Puget Sound. From Salt Lake City another subsidiary of the Union Pacific, the Los Angeles & Salt Lake, extends in a southwesterly direction to Los Angeles. At Ogden, Utah, the Union Pacific connects with the Central Pacific, which is controlled by the Southern Pacific, thus making a through route to San Francisco. The Union Pacific does not extend east of Omaha, but as the map on page 124 shows, a number of Granger roads, notably the Chicago & North Western, the Chicago, Burlington & Quincy, and the Chicago, Rock Island and Pacific, have lines from Omaha to Chicago. The Central Transcontinental route is also served by the Missouri Pacific, the Denver & Rio Grande, the Western Pacific, and portions of the Southern Pacific.

Southern Transcontinental Route.—The Southern Transcontinental route is served by the Atchison, Topeka & Santa Fe, which extends from San Francisco to Chicago, and the Southern Pacific, with its eastern terminus at New Orleans.

Westbound traffic over the transcontinental routes consists of iron and steel, coal, and manufactured products, in large quantities. Fresh fruits, vegetables, canned goods, sugar, and lumber move eastward over these routes.

Pacific Coast Route.—The route runs north and south along the Pacific Coast. The principal carrier is the Southern Pacific, but the Atchison, Topeka & Santa Fe also serves a portion of the route. Water

competition is keen along this route as most of the important cities are on the coast.

GEOGRAPHICAL GROUPING OF RAILROADS

The Interstate Commerce Commission groups the railroads for statistical purposes into three districts: Eastern, Southern, and Western. The districts in turn are divided into regions as follows:

Eastern District:

- New England Region
- Great Lakes Region
- Central Eastern Region

Southern District:

- Pocahontas Region
- Southern Region

Western District:

- Northwestern Region
- Central Western Region
- Southwestern Region

Fig. 20 shows the location of these regions.

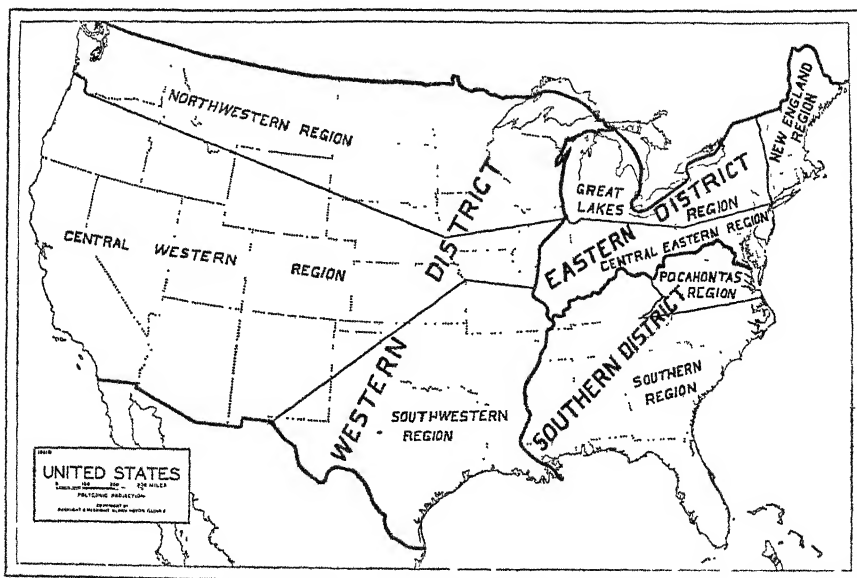


FIG. 20.—Grouping of Railroads into Regions and Districts.⁵

⁵ Adapted from map published in Interstate Commerce Commission, *Statistics of Railways in the United States*.

Below are listed the larger railroads in the United States, grouped according to the region and district in which they operate. The list is arbitrarily restricted to companies operating a thousand miles or more of road.

I. Eastern District

A. New England Region

Boston & Maine

New York, New Haven & Hartford

B. Great Lakes Region

New York, Chicago & St. Louis (Nickel Plate)

Erie

New York Central

Wabash

Pere Marquette

C. Central Eastern Region

Baltimore & Ohio

Pennsylvania

II. Southern District

A. Pocahontas Region

Chesapeake & Ohio

Norfolk & Western

B. Southern Region

Atlantic Coast Line

Louisville & Nashville

Gulf, Mobile & Ohio

Central of Georgia

Illinois Central

Yazoo & Mississippi Valley

Seaboard Air Line

Southern Railway

III. Western District

A. Northwestern Region

Minneapolis, St. Paul & Sault Ste. Marie

Chicago & North Western

Chicago, St. Paul, Minneapolis & Omaha

Chicago Great Western

Chicago, Milwaukee, St. Paul & Pacific

Great Northern

Minneapolis & St. Louis

Northern Pacific

B. Central Western Region

Atchison, Topeka & Santa Fe
Chicago, Burlington & Quincy
Chicago, Rock Island & Pacific
Denver & Rio Grande Western
Southern Pacific
Union Pacific
Western Pacific

C. Southwestern Region

St. Louis-San Francisco
Missouri-Kansas-Texas
International-Great Northern
Missouri Pacific
Texas & Pacific
St. Louis Southwestern
Texas & New Orleans

The listing above is of separately operated properties. Some of the railroads listed are parts of a larger system. Thus, in the Great Lakes Region the New York, Chicago, & St. Louis, or Nickel Plate, and the Pere Marquette, are parts of the Chesapeake & Ohio System. The Wabash, also in the Great Lakes Region, is part of the Pennsylvania System. In the Southern Region the Louisville & Nashville is part of the Atlantic Coast Line System; the Yazoo & Mississippi Valley and the Central of Georgia are a part of the Illinois Central System. In the Northwestern Region the Minneapolis, St. Paul & Sault Ste. Marie, or "Soo Line," is part of the Canadian Pacific System, and the Chicago, St. Paul, Minneapolis & Omaha is part of the Chicago & North Western System. In the Southwestern Region the International-Great Northern and the Texas & Pacific are part of the Missouri Pacific System, and the St. Louis Southwestern and the Texas & New Orleans are part of the Southern Pacific System.

CLASSIFICATION OF RAILROADS ACCORDING TO SIZE

The Interstate Commerce Commission classifies railroads for statistical and accounting purposes into three classes: Class-I railroads are those having operating revenues in excess of \$1,000,000 per year; Class-II railways have operating revenues between \$100,000 and \$1,000,000; and Class-III lines are those with operating revenues of less than \$100,000. The railroads of the United States in 1944 were distributed in these groups as follows:

	Number of Operating Companies
Class I	131
Class II	171
Class III	190

The table shows a surprisingly large number of small railroads. If the railroads are grouped according to the number of miles of line which they operate, the same situation is shown. In Table XII the operating companies reporting to the Interstate Commerce Commission in 1944 for which the necessary information is shown are grouped according to the mileage operated.

TABLE XII
DISTRIBUTION OF OPERATING RAILROAD COMPANIES ACCORDING TO
MILEAGE OPERATED, 1944⁶

Mileage	Number
Over 10,000	1
5,000 to 10,000	7
2,000 to 5,000	18
1,000 to 2,000	15
500 to 1,000	19
100 to 500	72
Less than 100	354

Although there is a large number of small lines, the larger railroads own and operate by far the greater proportion of the total mileage of the country. The ownership of the 227,335 miles of line in existence in 1944 was distributed as follows:⁷

	Mileage Owned
Class-I railways	174,473
Class-II railways	7,869
Class-III railways	2,508
Owned by nonoperating companies	33,856
Others	8,629
	<hr/> 227,335

Thus over two-thirds of the mileage was owned by Class-I railways. The Class-I railways also operated 33,596 miles of the 33,856 miles of non-operating or lessor companies.⁸ The number of separate railroad companies tends to become fewer year by year as a result of consolidations and mergers and abandonments. Efforts have been made from time to time to encourage the consolidation of the railroads into a few large

⁶ Computed from *Statistics of Railways in the United States, 1944*.

⁷ *Ibid.*, p. 3.

⁸ *Ibid.*

systems. The Transportation Act of 1920 directed the Interstate Commerce Commission to draw up a plan for the consolidation of the railroads into a limited number of systems.⁹ All actual consolidations were to conform to this plan. A plan was drawn up by the Commission in 1929.¹⁰ A major revision of the plan, so far as Eastern Territory is concerned, was made in 1932.¹¹ The Commission's plan called for seventeen systems, with a few railroads assigned to the two large Canadian systems: the Canadian National, and the Canadian Pacific. Since there was no power given to the Interstate Commerce Commission to compel consolidation, and since the carriers were not anxious to consolidate in accordance with the plan drawn up by the Commission, nothing came of this effort, and the Transportation Act of 1940 repealed the provisions relating to the making of a consolidation plan and requiring that any consolidations occurring should conform to the plan. Other suggestions have been made to consolidate the railroads into an even smaller number than the nineteen systems proposed by the Commission.¹²

SELECTED REFERENCES

Major traffic routes in the United States are described by Stuart Daggett in *Principles of Inland Transportation*, rev. ed. (New York, Harper's, 1934), ch. XI, and maps of important lines serving each route are shown. A slightly different presentation of the major routes is given in S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), pp. 295-304. Miller also gives a territorial grouping of the railroads in ch. XVII, and an ownership grouping in ch. XXVI. An excellent presentation of the railroad system grouped according to territories served, illustrated with maps, is in L. H. Haney, *The Business of Railway Transportation* (New York, Ronald Press, 1924). There is much descriptive material relating to the railway system of the United States in Julius H. Parmelee, *The Modern Railway* (New York, Longmans, 1940).

⁹ See ch. XI.

¹⁰ 159 I.C.C. 522.

¹¹ 185 I.C.C. 403.

¹² See Federal Coordinator of Transportation, *Regulation of Railroads*, 73d Cong., 2d sess., Senate Doc. No. 119 (1934), pp. 21-29, and 106-123; Miller, Carroll, Address in *Proceedings of the 49th Annual Convention of the National Association of Railroad and Utilities Commissioners*, 1937, p. 25, and Commissioner Miller's concurring opinion in *Fifteen Percent Case*, 1937-1938, 226 I.C.C. 41, 158.

CHAPTER VII

THE THEORY OF RAILROAD RATES

THE railroad business requires a large plant representing a huge investment in fixed and specialized capital. In 1944 the investment in road and equipment of the railroads of the United States was over \$26,600,000,000. This is equivalent to more than \$117,000 per mile of road. This sum also represents capital of a highly specialized sort. The property of a railroad can be used only for transportation purposes. If a railroad proves unprofitable the plant cannot be used for something else. A large part of the investment is in grading and excavation, and these have no value except as a roadbed for a railroad. Even the land itself, once it has been used for railroad purposes, is largely worthless for any other purpose. But railroad capital is not only specialized; it is fixed capital as well. It is bound to its original location. If a particular railroad fails, it cannot be moved to some other location where the prospects of success may be greater. The rolling stock can be moved away, the rails can be torn up and sold for use elsewhere, but by far the largest part of the investment has been irrevocably sunk in the original site. These characteristics of the railroad business have important economic consequences.

COMPETITION NOT A REGULATOR OF THE RATE LEVEL

Since the original investment in a railroad is large, and since it represents fixed and specialized capital, competition does not keep the earnings of the industry at a normal level. If the capital cannot be withdrawn from the business, a company will continue operations as long as it can make some return on the capital invested. If the railroad is abandoned, practically all the money invested in it is lost. If it can make a small profit by continuing operations, it is better to do so than to go out of business. Of course, if there is no return on the capital invested, there is no inducement to maintain the property and to replace such units as wear out. The owners will get what they can out of the property before it becomes so deteriorated that it must be abandoned. But even if the return on capital is less than can be secured in other industries, new capital may be put in if the possibility of earning a return on the original investment is improved thereby. A great many

railroads in the United States which have been in existence for many years earn very small returns on the capital invested.

A railroad may, on the other hand, earn large profits without inducing capital to build a competing line. At the present time, public authority is loath to permit the construction of rival railway lines, but even if this were not true, the construction of a competing railroad would be a hazardous undertaking, as many investors learned to their sorrow during the era of railroad building in the United States. Traffic may be sufficient to yield one railroad a handsome profit, and at the same time be insufficient to enable two railroads to pay operating expenses.

In the long run, railroads, as well as other industries, must be able to earn a return on the capital invested or they cannot exist. But the long run is so very long absolutely, that the flow of capital into and out of the industry does not take place rapidly and easily enough to act as a regulator of the level of railway charges in any practical sense.

CONSTANT AND VARIABLE EXPENSES

The huge physical plant and the enormous investment therein are largely responsible for another characteristic of the railroad industry. Railroad expenses can be divided into two groups: variable expenses, which tend to vary with the volume of traffic; and fixed or constant expenses, which, over short periods at least, are independent of the volume of traffic. The latter remain the same whether the railroad is operated to capacity or whether it is only partially utilized. The distinction between the two classes of expenses is of prime importance in explaining the peculiarities of railway rates. The significance of this distinction was pointed out very early in the history of railroads.¹ Variable expenses are frequently called "prime costs," or "direct expenses." Sometimes they are called "out-of-pocket expenses," although this term is often used in a more restricted sense. Constant expenses are commonly called "indirect expenses," "fixed expenses," "supplementary expenses," "overhead expenses," or "burden."

The importance of the distinction between constant and variable expenses warrants an examination of railway expenses for the purpose of determining to what extent they are constant and to what extent vari-

¹ See particularly, Dupuit, "De la Mesure de l'Utilité des Travaux Publics," 8 *Annales des Ponts et Chaussées*, 2d series, 332 (1844), and "De l'influence des Péages sur l'Utilité des Voies de Communication," 17 *Annales*, etc., 170 (1849); Alphonse Belpaire, *Traité des Dépenses d'Exploitation aux Chemins de Fer* (1847), and Dionysius Lardner, *Railway Economy* (New York, Harpers, 1850).

able. First in importance, is the interest on the capital invested in the business. If we assume a given physical plant, the interest on the investment is the same regardless of the volume of traffic. That part of the return on capital which is paid out as interest on bonds is clearly a constant expense, for the "fixed charges" (interest on bonds) are the same regardless of the quantity of traffic moved over the railroad. Part of the return on capital is in the form of dividends on stock. Dividends are presumably paid out of earnings. This item might, therefore, be regarded as a variable expense, or as the accountants would say, not an expense at all, but a distribution of profits. But in discussions of economic theory, a return on capital, or so much of it as is a normal return, may properly be considered as a cost of production. This is so because capital must in the long run receive its reward, or additional capital will not be forthcoming when needed. Interest on investment is, therefore, to be considered as a constant expense. It is sometimes said that in the long run the return on capital is a variable expense. The more traffic there is, the larger the plant becomes and hence the greater the investment, and the greater the sum necessary to pay a return on the capital invested. This is true, but for the purpose of explaining certain characteristics of railway rates it is necessary to assume a given physical plant. When this is done, the return on capital is clearly independent of the traffic handled.

A great many of the expenses of a railway which are classified as operating expenses are independent of the volume of traffic. Many of the items comprising maintenance of way and structures are of this sort. The railroad plant is to a large extent exposed to the action of the elements. Embankments are washed by rains, ditches become filled, rails and rail fastenings rust with exposure to the weather, cross-ties rot out, the action of rains and frosts makes necessary constant expenditure to keep rails in alignment and tracks level. Buildings and bridges require expenditures for upkeep that are in no way related to the quantity of traffic moving over the railroad. Of course some items in the maintenance-of-way accounts are affected by the volume of traffic. The wear on rails, for instance, increases with the volume of traffic moving over them. It nevertheless remains true that the maintenance-of-way expense is largely independent of the volume of traffic if a given standard of maintenance is assumed. Railroads can, and frequently do, defer maintenance work when business is dull, and speed it up when business is good. This practice gives a semblance of variability to main-

tenance expenses, but the variability is more apparent than real since deferred maintenance is an expense properly chargeable to the period in which it accrued.

Maintenance of equipment, another important expense of railroads, is more nearly variable than maintenance of way and structures. But even here many items do not vary with traffic. Freight cars, for instance, are subject to the action of the elements, and repairs become necessary whether the cars are constantly in use, or remain standing on sidings for a large part of the time. Depreciation of cars and locomotives is not wholly a function of the use made of them. This is particularly true of that element in depreciation known as obsolescence.

If we turn to the expenses commonly called "transportation expenses," we again find many items which do not vary proportionately with the traffic. Transportation expenses include the wages of train crews and of station and yard forces, fuel consumed, and many other items. If additional traffic can be handled without increasing the number of trains, the wages paid for train crews will remain the same. Neither will fuel expenses increase in proportion to the traffic, since it does not take twice the fuel to pull a train of 50 cars that was required for a train of 25 cars. An early writer refers to the hauling of partially loaded cars and short trains as a "waste of power."² If the increase in traffic makes necessary an increase in the number of trains, then the wages of train crews and the outlay for fuel may increase in proportion to the traffic increase, but it might not be necessary to increase proportionately the expenditures for station or yard forces. If transportation expenses, in the long run, tend to vary with the volume of traffic, the railroad is probably justified in apportioning these expenses on the basis of averages, but if particular units of traffic are clearly shown to involve very little extra expense, there is a temptation to consider them as profitable even if they do not contribute their share of all transportation expenses.

The so-called "general expenses" of a railway include the salaries of higher officials, of administrative officers, and the expenses of maintaining the general offices of the company. It can be seen at once that these expenses are largely constant.

Lastly, mention may be made of taxes, which in 1944 amounted to over \$597,000,000 for the Class-I railroads alone, excluding payroll taxes and Federal excess profits taxes. If taxes are based on tonnage, or

² Galt, Wm., *Railway Reform* (London, Pelham Richardson, 1843), p. 10.

on gross receipts, they vary with the volume of traffic. If they are based on net income, like the Federal corporation income tax, they have some relation to the volume of traffic. But by far the largest part of the taxes are property taxes, based upon an assessed value of the railroad's physical property. When taxes are levied in this manner they bear no relation to the volume of business done and may be considered as constant expenses.

It is often said that approximately two-thirds of the total expenses of a railway are constant, and only one-third variable.³ These fractions may be useful in giving a general picture of the importance of constant expenses, but it is mathematically impossible for one-third of the expenses to be variable and remain one-third if the volume of traffic changes. Suppose for instance, that on a certain railroad at a certain time one-fourth of the expenses could be classed as variable and three-fourths as constant. If the volume of traffic doubled, the variable expenses would become two-fifths, and the constant expenses three-fifths of the total. The important thing to note is that only part of the expenses are variable, and that there is a large mass of constant expenses which do not vary with the volume of traffic.

RAILROADS AND THE LAW OF INCREASING RETURNS

One important result of the invariability of certain railroad expenses is that unit costs, that is, costs per unit of traffic, tend to decline as the volume of traffic increases. This will be true up to the point of most efficient utilization of the existing plant. Beyond this point further increases in traffic will crowd the carrier's facilities, and unit costs will tend to rise. As long as there is a substantial amount of unutilized capacity, however, increases in traffic will lower the unit costs, since the fixed or constant expenses can be spread over a larger amount of business. This situation is commonly expressed by saying that the railroads are subject to the law of increasing returns.⁴

Increasing returns in the railroad industry arise primarily from the economy of more complete plant utilization whereby constant costs are

³ Jones, E., *Principles of Railway Transportation* (New York, Macmillan, 1924), pp. 77-78; Ripley, W. Z., *Railroads: Rates and Regulation* (New York, Longmans, 1912), pp. 55-56.

⁴ This does not mean that the railroad industry is necessarily an industry of decreasing costs as that term is used in economic theory. The term "decreasing costs" refers to a situation in which an expansion of the productive facilities in the industry results in lower unit costs, not to a situation in which lower costs result merely from more complete utilization of the existing plant. See Blodgett, Ralph H., *Principles of Economics* (New York, Farrar & Rinehart, 1941), pp. 234 and 251-252.

distributed over a larger volume of traffic. It should be recognized, however, that increasing returns may also arise from the greater economy of a large plant as compared with a smaller one, and that over long periods of time this may be an important factor in reducing unit costs if continuous expansion of traffic occurs.

The significance of fixed or constant costs in the railroad industry, and in other industries as well, was pointed out by Dionysius Lardner in 1850. "The cost of production of the objects of industry," he said, "may always be regarded as consisting of two parts, one of which is quite independent of the number of articles produced, and being, therefore, equally divided among them, will render one element of their price precisely in the inverse ratio of the number; but still there will be another component, which, depending on the direct application of manual or other labor, and on the immediate consumption of raw material, will be in the direct ratio of the number of articles produced."⁵

Since railroads are subject to increasing returns they are peculiarly susceptible to fluctuations in earnings when traffic increases or decreases. If an increase in the volume of traffic increases operating expenses only slightly, the increase in traffic will greatly augment the net income of the carrier. Conversely, a decline in the volume of traffic will quickly convert a profit into a loss.⁶ This extreme sensitiveness to changes in the volume of traffic is often obscured by the practice of deferring maintenance and postponing property retirements in time of depression and catching up on such expenditures in time of prosperity. This gives an appearance of stability to net earnings, but the stability is secured by concealing the true state of affairs. It may be a wise policy to defer maintenance and replacements when funds are short, and catch up when funds are abundant. But the operating expense account should show all the expenses pertaining to a given period, including depreciation of the property not restored by current expenditures.

DISCRIMINATION

The existence of a large mass of constant or supplementary expenses gives the railroad a motive to vary its charges according to the exigencies of demand. If a particular unit of traffic will not move unless charged a low rate, it is profitable for the railroad to quote a low rate provided the variable or "out-of-pocket expenses" are covered. If the

⁵ *Op. cit.*, p. 192.

⁶ For a demonstration showing how an increase of 10 percent in traffic might increase net return by over 100 percent, see Jones, *op. cit.*, pp. 78-79.

railroad can get something over the variable expense this item of traffic is profitable. It covers the extra expense incurred in taking the traffic, and it makes some contribution to the overhead expenses which must be incurred anyway. If the railroad attempted to charge a normal rate the traffic would not move.

This practice is called differential charging, or discrimination. The terms refer to differences in rates not justified by differences in cost of service. The practice of differential charging results in a situation which is very confusing to persons unacquainted with railroad economics, for the railroad is found to be carrying some kinds of traffic at less than the full cost of the service, yet is making a profit out of it. The average rate per ton-mile in the United States has, for many years, been close to 10 mills. But much traffic is carried for 6 mills or less, and this traffic is profitable. It will not move at higher rates; it pays the extra expense incurred in taking it; and it makes some contribution to overhead.

If all expenses of a railroad were variable, there would be no incentive to discriminate in this way. If, for instance, it cost 11 mills additional for every ton-mile of freight transported, and no part of this expense was incurred if the traffic did not move, the railroad would never charge less than 11 mills; for if it did, an actual loss would be incurred. The railroad might possibly discriminate by charging certain traffic more than 11 mills, but the characteristic feature of railroad discrimination is that many rates are less than the full cost of the service. The motive for this type of discrimination is found in the existence of the large mass of supplementary expenses.

DISCRIMINATION BETWEEN COMMODITIES

The practice of differential charging takes a number of different forms. The first and most obvious type is discrimination between commodities. The wide range that may exist in rates on different commodities is shown in Fig. 21.

These differences in rates may be explained on two grounds. First, there are differences in the cost of service. Some articles are more expensive to transport than others. Some require more expensive types of equipment; some require special facilities of one sort or another; some require expedited service; some are more bulky than others, and hence the cost, per unit of weight, is greater than when the weight-density is greater. Differences in liability and risk also make differences in the cost of service. Cost factors affecting rates will be considered

more in detail in a subsequent chapter.⁷ But differences in rates based on differences in cost of service are not real discriminations. We are interested here in the differences in rates which cannot be explained by differences in cost of service.

These differences are explained by differences in the ability of the

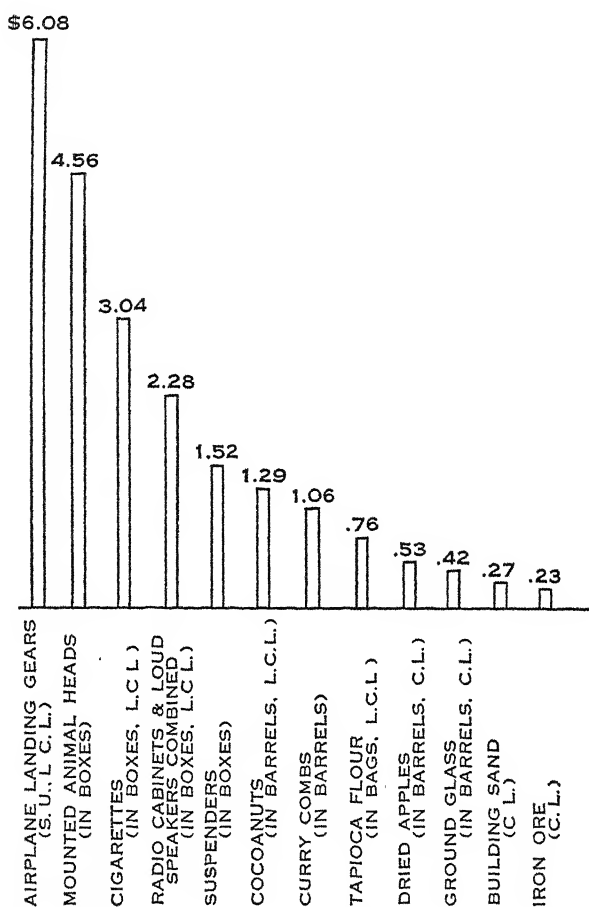


FIG. 21.—Rates on Selected Commodities, New York—Chicago (per Hundred Pounds).⁸

traffic to stand high transportation charges. The motive for these discriminations lies in the existence of unused capacity and fixed or overhead expenses. Some commodities will not bear high rates. These will be charged low rates. Others can stand the full cost of transporting

⁷ Chapter XVIII.

⁸ From Consolidated Freight Classification No. 6 and Trunk Line Tariff Bureau's Tariffs No. 60 and 23-B (1931).

them, including a pro-rata share of the overhead. These will be charged higher rates. Still other commodities will stand rates which represent more than the cost of service. The carrier, if not restrained by regulation, will exact very high rates on the latter.

Discrimination between commodities is accomplished by two different devices: the classification of freight, that is, the grouping of commodities into a limited number of classes or groups, for the purpose of applying rates; and secondly, the granting of special or "commodity" rates on articles for which the regular class rates are not suitable. Many commodity rates are lower than the lowest class rates."

LOCAL DISCRIMINATION

Differential charging also results in rates that bear no relation to distance. Since costs of transportation increase with distance, rates that disregard distance disregard costs. They are therefore real discriminations. This type is known as local discrimination, or discrimination between places. Local discrimination takes a number of different forms: differences in rates for equal distances;¹⁰ equal rates for unequal distances, such as result from "group" or "blanket" rates; the practice of increasing rates with distance less rapidly than cost of service justifies; the extreme case of charging higher rates for shorter than for longer hauls over the same line and in the same direction—these are all examples of adjusting rates on particular hauls according to the demand for the service. The cases of market competition mentioned in an earlier chapter show how frequently the conditions of demand may dictate rates that disregard differences in cost of service.¹¹

PERSONAL DISCRIMINATION

The same motives which cause a railroad to grant special rates on low-grade commodities and on traffic that will not bear high rates lead to the granting of concessions to particular shippers. This practice constitutes personal discrimination. It is highly objectionable, and it is unlawful. A strong motive exists on the part of the carrier, however, to make concessions to particular shippers when necessary to secure their traffic. The additional traffic increases expenses very little, and anything which the carrier can secure above the direct expenses will

⁹ Class and commodity rates are described more fully in the following chapter.

¹⁰ Distance is not always a true measure of differences in the cost of different hauls; hence some differences in rates for equal distances are consistent with the cost-of-service principle.

¹¹ Pp. 59-60, *supra*.

be considered as profit to it. This subject will be considered more fully in a subsequent chapter,¹² but the point to note here is that, like other forms of discrimination, it finds its motive in the desire to increase traffic and utilize capacity more fully.

RUINOUS COMPETITION

We shall return to the subject of discriminating rates very shortly, but there remains one further characteristic of the railroad business which proceeds from the existence of a large group of supplementary expenses. Competition in the railway industry is ruinous. By this we do not mean simply that some companies will fail, for that happens as a result of normal competition. What we mean is that competition will force rates below the cost of service for the entire industry. Rates cannot continue at this level without destroying the railroads themselves, for if no return is earned on the capital invested, there is no inducement to restore the plant as it wears out.

The reason why competition does not stabilize rates at cost, but forces them below cost, needs a word of explanation. If all costs were variable costs, it would be foolish for a railroad to cut rates below the cost of service. It would be better to close down and let the other road carry the traffic under such conditions; for the greater the volume of traffic carried, the greater would be the loss. But when part of the expenses are constant and part variable, it is better to take traffic that pays less than the full cost of the service than to let a rival carry it. The railroad may lose money in carrying it at a low rate, since the overhead expenses are only partially covered, but if the traffic is not carried by it at all, there is no contribution to overhead whatsoever. In other words, it is often better to carry traffic at a loss than not to carry it and lose more. Competition, then, tends to reduce rates to prime or variable costs. This struggle for traffic, unless checked by some device, will continue as long as there is unused capacity.

Some writers, in discussing ruinous competition, quite properly distinguish between two types of constant expenses.¹³ There are the sunk costs, which represent the return on the capital invested, and there are the general expenses of the business which, although constant, must be regularly made if operations are to continue. Among the latter are

¹² Chapter XX.

¹³ Fisher, Irving, *Elementary Principles of Economics* (New York, Macmillan, 1912), pp. 323-328; Brown, H. G., *Transportation Rates and Their Regulation* (New York, Macmillan, 1916), pp. 11-12, 18-24.

the salaries of the executive officers of the railroad, many office expenses, and the like. The latter have more effect on rates than the former. The railroad cannot continue in business if it does not have sufficient income to pay actual expenses of operation. But, as we have seen, it may continue in business a long time with scarcely any return on the capital invested. Competition may not therefore reduce rates to prime costs without destroying the railroad very quickly, but it can reduce them below the full cost of the service for long periods of time, destroying the railroad by slow degrees.

The same characteristics which cause railroad competition to be ruinous operate in the industrial field, though to a lesser degree. Industries which, like railroads, have a large investment in fixed and specialized capital, and which therefore have large fixed expenses, find themselves subject to the same danger. If competition is not held in check in some way, prices are forced below cost. These are the industries in which the motive to control prices by means of combinations, price agreements, and other devices, is the strongest.¹⁴

CONTROL OF COMPETITION ESSENTIAL TO DISCRIMINATION

The motive for discriminating rates is found in the desire to increase profits by utilizing the plant to capacity. But discriminating rates are not sufficiently explained by pointing out the motive. Regardless of how strong the motive may be, certain conditions must be fulfilled before discrimination can take place.

The first condition is that competition must be restrained. In other words, there must be a certain degree of monopoly or control over prices, for if not, competition will bring rates to an equality, that is, in so far as costs are the same.¹⁵ Suppose a railroad which has been charg-

¹⁴ An excellent discussion of the extent of ruinous competition in industry is contained in Jones, E., "Is Competition in Industry Ruinous?" 34 *Quarterly Journal of Economics* 473 (1920).

¹⁵ The fact that competition would eliminate discriminating rates was pointed out by Colson in 1890. See *Transports et Tarifs*, Travis translation, pp. 28-29. The point is also made by H. G. Brown in "The Basis of Rate-Making as Affected by Competition versus Combination of Railroads," 16 *Yale Review* 79 (1907). It was reasserted by Pigou in his controversy with Taussig, 27 *Quarterly Journal of Economics* 691 (1913). Taussig disagreed with Pigou on this point, 27 *Quarterly Journal of Economics* 537. L. H. Haney agrees with Taussig, "Joint Costs with Especial Regard to Railway Rates," 30 *Q.J.E.* 233 (1916), and so does G. P. Watkins, "The Theory of Differential Rates," 30 *Q.J.E.* 682 (1916). We are here following Pigou, who in reply to Watkins said: "Reflection . . . shows that, when competition really prevails, seller A must always endeavor to undersell B by offering to serve B's better-paying customers at a rate slightly less than B is charging, and that this process must eventually level rates." *Economics of Welfare*, p. 257 note.

ing discriminating rates finds itself confronted by the competition of a new line. Immediately a struggle for traffic begins. The traffic which is being charged the highest rates and which contributes more than a pro-rata share of the overhead costs is the most desirable traffic. In the struggle for tonnage, rates on this traffic will certainly be reduced. Thus the rates which are above cost of service cannot be maintained in the face of competition. But what about the rates which just cover the full cost of the service or are differentially low and contribute less than a pro-rata share of all expenses? If there is unused capacity, the rates on this traffic will be forced even lower than they already are. In the desire to obtain traffic, rates will be forced down toward prime costs. Ruinous competition will set in, and such differences in rates as are not based on differences in prime costs will disappear. But long before this happens, combination will occur, or some sort of agreement will be reached, thus restricting competition and permitting discriminating rates to continue. It sometimes happens that there is no agreement between the carriers to maintain rates but the results are similar because each carrier is restrained from cutting rates by the knowledge that a cut would be met by a similar reduction in the rates of his rival. This is a common situation when the number of concerns is small. In cases of this sort there is an absence of real price competition between the rival carriers.

There is some concrete evidence to substantiate our conclusion that discriminating rates cannot stand in the face of real competition. During the rate wars of the sixties and seventies in Trunk-Line territory, rate differentiation largely disappeared. During the periods of extremely low rates, the rates on all four classes of freight were frequently the same. During the periods of agreement when more nearly normal rates were maintained, differentiation reappeared and the rates on each of the four classes would be different.¹⁶ Recent developments in the competition between railways and motor trucks also point to the conclusion that discriminating rates tend to disappear under the stress of competition. As long as the railroads had a monopoly of transportation they were able to maintain a considerable degree of discrimination. The very fact that freight classifications are made by classification committees representing all the railroads in the territory concerned, and that traffic

¹⁶ For actual figures see Fink, Albert, *Statistics Regarding the Movement of Eastbound and Westbound Traffic Over the Trunk Lines, etc.* (New York, Russell Bros., 1884), p. 39.

associations exert a considerable influence in the adjustment of rates, implies enough concerted action in rate making to prevent the reduction of rates to equality. But the development of motor-truck competition has threatened to break down long-established classifications. In order to meet truck competition some railroads have put into effect special rates on general merchandise in carload lots, regardless of the classification of the articles under the regular freight classification.¹⁷ Another illustration of similar effects of competition is found in the rates charged in connection with the "container-car service" adopted by a number of railroads. Here the rate is on the loaded container regardless of the nature of the articles in it.¹⁸ Such rates are necessary to meet motor-truck competition. Motor-truck competition is not likely to destroy completely the old classifications, since much of the low-grade traffic moves at such low rates that the trucks cannot compete. The railroads' monopoly of this traffic is therefore unaffected, and the carriers can differentiate between such commodities on the basis of the demand for the service. The fact that the situation described is one in which a new agency of transportation is competing with railroads as a whole is of no significance so far as the point is concerned which we wish to establish. The same general breakdown in freight classification would result from unrestricted competition between individual railroads. It is interesting to note that in one instance at least the railroads and motor carriers got together and agreed to adhere to a standard freight classification, thus enabling the railroads to abandon their all-commodity rates and return to the traditional differentiation between commodities according to their ability to stand transportation charges.¹⁹

DEMAND PRICES OF DIFFERENT SERVICES MUST BE INDEPENDENT

Control of competition is not the only condition essential to discrimination. Even the monopolist with complete control over his product may be unable to discriminate. The demand price for one unit of product or kind of service must be independent of the price at which

¹⁷ Flynn, Leo J., *Co-ordination of Motor Transportation*, 72d Cong., 1st sess., Sen. Doc. No. 43 (1932), p. 72. See also *Selma, Ala. Chamber of Commerce v. Alabama Great Southern R.R. Co.*, 201 I.C.C. 7 (1934); *All Freight, Boston to East Hartford*, 223 I.C.C. 421 (1937); *All-Freight from Chicago & St. Louis to Birmingham*, 226 I.C.C. 455 (1938).

¹⁸ See 173 I.C.C. 377, and 185 I.C.C. 787.

¹⁹ *Rates between Arizona, California, New Mexico, and Texas*; 3 Motor Carrier Cases 505 (1937).

others are sold.²⁰ If this situation does not exist, the seller will find that selling a part of his product at a low price will interfere with his ability to sell another part at a higher price. Thus manufacturers often find it necessary to disguise that part of their product which is sold at low prices, say through mail-order houses or chain stores, if they are to continue charging higher prices for the same or similar product sold through other channels of distribution. By thus concealing the practical identity of goods sold at different prices the demand prices are kept independent. No such deception need be practiced by railroads in order to sell their product—transportation—at different prices to different customers. It can be easily seen that the demand for the transport of one commodity is largely independent of the price at which the transport of other commodities is sold. If one has wheat to ship and finds that the rate on coal is less, he does not purchase coal transport instead of wheat transport. Likewise, transport from A to B and from C to D are quite independent, and a higher rate from A to B will not result in substituting shipments from C to D.

Some railroad services, however, are so related that the demand price for one service is affected by the price at which another service is sold. If two commodities are competitive it may be that a higher rate on one diminishes the demand for the transportation of it and increases that of the other. Similarly, a high rate on a raw material and a low rate on a finished product made from it may increase the transport of the latter, and decrease the transport of the former, by increasing the advantage of the producers located near raw materials. And if A and B are two rival producing centers, and M is a common market for the product, a higher rate from A to M than from B to M will cause the demand for transport from B to M to increase at the expense of that from A to M. To a large extent, however, the demand for one transportation service is independent of the price at which other services are sold. If this were not true, discrimination would be impossible.

SUMMARY

The theory of railway rates which we have developed involves three main propositions. The first is that the motive to discriminate in the

²⁰ This point receives careful consideration in Pigou, A. C., *Wealth and Welfare* (London, Macmillan, 1912), and in *The Economics of Welfare* (London, Macmillan, 1920); it receives some recognition by Douglas Knoop in *Outlines of Railway Economics* (London, Macmillan, 1913), p. 155, and by J. B. Clark in *Essentials of Economic Theory* (New York, Macmillan, 1907), p. 413.

sense of charging less-than-cost rates is to be found in the large mass of constant expenses. If all expenses were variable there would be no less-than-cost rates.²¹ The second proposition is that discriminating rates would not continue under real competition, and that therefore an element of monopoly or absence of real competition is a further essential in the explanation of discriminating rates.²² It is essential to note that although discriminating railway rates would not exist under real competition, the presence of monopoly is not a sufficient explanation of discriminating rates, since in the absence of overhead costs there would be no downward discrimination in rates although there might be discrimination upward. The third proposition is that even under monopoly conditions and in the presence of overhead costs discrimination could not be practiced if the demand prices for different transportation services were not independent of the price at which other transportation services are sold.²³

THE DEMAND FOR TRANSPORTATION SERVICE

Discriminatory rates are based on the demand for the service rather than on the cost of the service. It is necessary, therefore, to analyze more closely the nature of the demand for transportation service. The discussion is confined to the freight service. It is here that we encounter the phrase "the value of the service," which marks the upper limit of the freight charge. If more than this is charged, the traffic will not move. The term "value of service" is sometimes used in the sense of the highest charge that can be levied without diverting traffic to some other

²¹ Except where true jointness of supply exists as in the case of back-hauls.

²² Again with the exception of cases in which true jointness of supply exists.

²³ The reader familiar with other treatises on transportation will note the absence of any reference to joint costs in the explanation of discriminating rates. The joint-cost theory of railway rates was first put forward in 1891 by Professor Taussig. See "A Contribution to the Theory of Railway Rates," 5 *Quarterly Journal of Economics* 438. Although some doubts were expressed of the adequacy of this theory, it was widely accepted as an explanation of railway rates. Many writers combined the joint-cost explanation and the overhead-cost explanation. In 1912 and 1913 Professor Pigou criticized the joint-cost theory and maintained that railways did not provide an example of true joint costs. See *Wealth and Welfare*, 1912, and the controversy between Pigou and Taussig in 27 *Quarterly Journal of Economics* 378-384, 535-538, 687-694 (1913). The present writer has elsewhere expressed the belief that the joint-cost theory is an inadequate explanation of railway rates and that it confuses "joint costs" and "constant costs." See "A Review of the Literature on Railway Rate Theory," 47 *Quarterly Journal of Economics* 167 (1933). Real joint costs do exist on railways to some extent and certain rate phenomena such as rates on back-hauls can be explained in terms of joint supply. But an attempt to differentiate between discrimination that is explained by overhead costs or unused capacity, and that which is explained by joint costs see D. H. Wallace, "Joint Supply and Overhead Cost and Railway Rate Policy," 48 *Quarterly Journal of Economics* 583 (1934).

transportation agency—another railroad, or motor carriers. Charges made by competing carriers will often limit the charges which another carrier can exact. A demand curve that takes this factor into consideration would be a demand curve for the services of a particular railway, or of a group of railways. In the analysis which follows we are interested in the demand curve for transportation service, regardless of the agency or agencies which transport it.

At the outset it is well to recognize that the demand for the transportation of a commodity and the demand for the commodity itself are two different but related things. They are related in that anything which restricts the demand for a commodity restricts the demand for the transportation of that commodity. But the demand for the transportation of a commodity may be restricted without affecting the demand for the commodity itself. To illustrate, suppose an article can be produced at A at a slightly lower cost than at B where it is to be consumed. A high freight rate will prevent the production of the commodity in A and its transportation to B but will not prevent consumption of the article. In either case it will be consumed at B, but with a low rate it will be produced in A and transported to B; with a high rate it will be produced at B and no transportation, except within the community itself, will be involved.

VALUE OF THE SERVICE

The value of the service determines the maximum rate that can be charged for the service of transport. The phrase has been defined in many different ways. A common definition is that the value of the service is the difference in the price of an article in two places. If the price of an article is \$1.00 in A and \$1.20 in B, the article will not be transported from A to B if the freight rate is greater than 20 cents. It may often happen that the difference in price in two places measures the value of the service of transport; for if a person contemplates buying goods in A to sell in B, he obviously cannot carry out his plan successfully if the price in B is not equal to the price in A plus the transportation charge to B. But in a great many cases the transportation charge itself determines the difference in the price of articles in different places. As we have already seen, the common relationship between wheat prices in the various parts of the United States and of the world illustrates the point. An increase in the freight rate between Chicago and New York on wheat might increase the price in New

York and lower it in Chicago. A decrease in the rate would decrease the spread. In other words, the value of the service is whatever the rate happens to be. Clearly this definition is inadequate.

The adherents to this definition of the value of the service admit, however, that once a rate has been established between two points, prices in the two places will adjust themselves to the rate, and the rate comes to measure the difference in prices. But they maintain there is a theoretical limit to the rate which is measured by a sort of natural difference in the prices that would exist if there were no transportation possible between the two points.

If there is any validity to the concept of a natural difference in price in two places it must relate to differences in cost of production in the two places. The definition thus reduces itself to the difference in the cost of production of an article in two places. Suppose that a commodity can be produced at A for \$1.00 and at B, a consuming center, for \$1.25. If the freight rate is less than twenty-five cents the article will be produced at A and transported to B. The rate cannot be higher than twenty-five cents without destroying the traffic. This concept of the value of the service fits many cases that arise in practice. It must be recognized, however, that there may be several costs of production at A. This is particularly true if the article is produced by many producers or if different units are produced at different costs. When this situation exists, a marginal shipper or a marginal shipment emerges under almost any rate, whether it be high or low.

An objection to this definition is that it does not cover the situation referred to in an earlier chapter,²⁴ where comparative costs make it profitable for a community to import a commodity which it could produce more cheaply at home, but which is not produced at home because it would interfere with the production of a more profitable commodity. Suppose A can produce an article for \$1.25, and B can produce it for \$1.00. The commodity may, nevertheless, be produced in A and shipped to B, because the production of it at B would interfere with the production of something more profitable. The above definition, however, can be easily modified to cover this case, which is a frequent one. The rate from A to B plus the cost of production in A cannot exceed the cost of production at B plus the "opportunity cost," incurred by producing it. By opportunity cost, we mean the profit sacrificed by not producing a more profitable commodity.

²⁴ Pp. 6-8, *supra*.

But there is still another objection to this definition. It does not cover the case in which a good cannot be produced at all at B, or can be produced only at a prohibitive cost. If bananas cannot be produced in New York City, the value of the service in transporting them from Central America to New York can hardly be defined as the difference in the cost of producing bananas in the two localities. And what is the value of the service, under this definition, for transporting coal from a region where it is mined to a region that cannot produce coal because no natural deposits exist? In cases of this sort the effect of the rate upon the price of the commodity, and hence upon the demand for the commodity, becomes the matter of importance.

Another objection to the definition of value of service as the difference in costs of production arises from the fact that although the commodity cannot be produced in B at all, it may be obtained from an alternative source of supply.

To meet this objection, value of service is sometimes defined as the difference between the cost of acquiring the commodity from A and from another source of supply, say C. But the cost of obtaining the commodity from C resolves itself into the cost of production at C plus the transportation charge from C to B. The rate from A to B plus the cost of production at A cannot exceed this sum. This concept of value of service is a realistic one which exactly fits many cases of market competition. But here again, if the alternative source of supply is a very expensive one, the effect of the rate upon the price and hence upon the demand for the article becomes the important factor, and the limit to the rate may be less than the difference between the cost of production at A and the cost of obtaining the commodity from an alternative source of supply.

No one of the above definitions gives a universal measure of the limit to freight charges. Each definition fits an important group of situations, but none covers them all. We shall therefore define the value of the service as the highest charge that can be levied without preventing a shipment from moving. That limit is determined by no one factor. Sometimes the effect of the rate on the demand for the article sets the limit; sometimes the limit is the difference in prices in two places; sometimes it is the difference in cost of production; sometimes it is the difference in cost of production if the opportunity cost at point of destination is also included; and sometimes the limit is set by the cost of obtaining the commodity from an alternative source of supply. But

whatever may determine the limit of the charge, the limit is real and cannot be ignored. It says to the railway manager who is making rates: Thus far shalt thou go and no farther.

VALUE OF SERVICE AND VALUE OF COMMODITY

Valuable articles are quite generally charged higher transportation rates than less valuable commodities. There are two reasons for this. The cost of transporting valuable goods is somewhat greater than the cost of transporting cheap ones, for the railroads' liability is greater. The railroad is liable, under the law, for the full value of the articles which it carries. But the difference in the rates on valuable and on cheap articles is much greater than can be justified on a cost-of-service basis. Insurance to cover the greater risk on valuable articles, if reduced to cents per hundred pounds, would rarely amount to one cent.²⁵ The more important reason for the differences in rates on cheap and on valuable articles is found in the greater ability of the valuable articles to stand a high rate. In other words there seems to be a relation between the value of the commodity and the value of the service of transporting it. Sometimes, in fact, it is assumed that basing rates on the value of the service is identical with basing them on the value of the commodity. The two principles are not the same, but they are related. The relationship between the two principles is not difficult to discover. The freight rate on a valuable article, even though high, is a small proportion of the price of the article at destination. The rate on a cheap article, though low, is a substantial proportion of the price. It follows that a high rate will affect the price of and the demand for a cheap article much more than it will for a valuable article. And anything which restricts the demand for an article will, as we have noted, restrict the demand for its transportation. Thus high rates restrict the movement of cheap commodities, but do not restrict the movement of valuable articles to so great an extent.

There is, however, no necessary relationship between the value of a commodity and its ability to bear high rates. This can be seen when the value of the service is measured by the difference in cost of producing an article in two places. If a very valuable article can be produced almost as cheaply at B, where it is to be consumed, as at A, the demand for the service of transporting it between A and B is very

²⁵ Woolley, Robert W., "How Freight Rates Should Be Made," 86 *Annals of the American Academy of Political and Social Science* 156, 165 (1919).

little as we have previously shown. The fact that the commodity is of considerable value makes no difference. As Daggett has aptly stated it: "Values and differences in values are obviously distinct."²⁶ Pigou has observed, however, that the differences in the value of valuable articles in two places is very likely to be greater than the differences in values of cheap articles "just as the probable differences in the heights of poplars in A and B is greater than the probable difference in the heights of cabbages."²⁷ But there is no necessary and invariable relation between the value of a commodity and the value of transporting it.

VALUE OF SERVICE AND DISTANCE

In general there is no relation between distance and the value of the service of transport, though some writers have assumed such a relationship.²⁸ There is, of course, a relation between distance and cost of service; hence there is often a relation between distance and the rate charged. The reason why discriminating rates so often ignore differences in distance is that there is no necessary relation between distance and the value of the service. Suppose an article may be produced at A, 100 miles from M, or at B, 1,000 miles from M, at the same cost. If we are given a certain market price at M, the value of the service of transporting the article to M is no greater for the thousand-mile haul than for the hundred-mile haul. Many times, of course, great distances mean differences in climate, soil, or natural resources, and hence greater differences in products or in the cost of producing the same products. Here a relationship between distance and value of service appears, but differences in soil, climate, and resources, are not necessarily related to differences in distance.

"WHAT THE TRAFFIC WILL BEAR"

The railroad rarely attempts to charge the entire value of the service on each commodity or class of traffic. The value of the service sets the upper limit beyond which the traffic will not move. Prime or variable costs, on the other hand, fix the lower limit below which the rate must not fall. But where, between the upper and lower limits, will the rate be fixed? The answer is summed up in the phrase, "charging what the traffic will bear." This is a much-abused phrase. It is often falsely inter-

²⁶ *Principles of Inland Transportation* (New York, Harper's, 1928), p. 364.

²⁷ *Wealth and Welfare*, p. 225.

²⁸ See Colson, *op. cit.*, p. 16; also 2 I.C.R. 436, 442 (1889), and 26 I.C.C. 159, 164 (1913).

puted to mean exacting the highest possible charge that can be extorted from shippers. The policy is more accurately, but more clumsily expressed, as "not charging what the traffic will not bear." The practice is one of granting concessions to traffic that will not move at normal rates, although it may, if not controlled in the public interest, lead to higher rates than are necessary on traffic that will stand high rates. To be more precise, charging what the traffic will bear means charging the rate on each commodity which, when the volume of traffic is considered, will make the largest total contribution to fixed or overhead expenses.

The principle of charging what the traffic will bear can be easily represented by a diagram. Suppose in Fig. 22 that the line DD represents the demand curve for the transportation of a certain article. Let

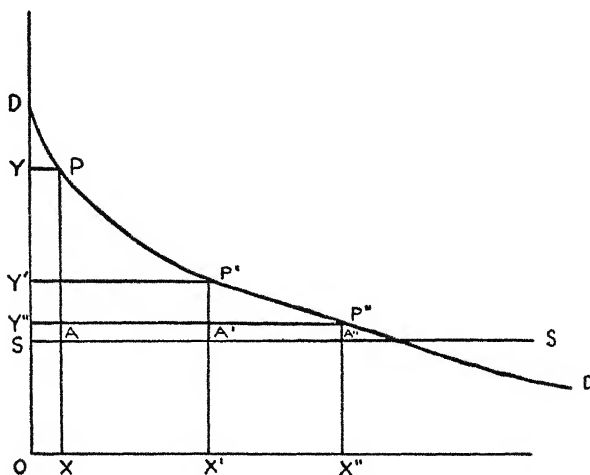


FIG. 22.—Charging What the Traffic Will Bear.

the line SS represent the cost curve. This will be a horizontal line because we are here concerned, not with total costs, but with prime or variable costs, and the variable costs are the same per unit regardless of the quantity shipped. If the rate OY is charged, the gross revenue will be represented by the area OYPX; the direct expenses by OSAX; the total contribution to overhead by SYPA. If a low rate Y'' is charged, the total contribution to overhead will be SY''P''A''. But somewhere between these two extremes, say at the rate OY', the contribution to overhead will be the largest.

The most profitable rate will be at different points for different commodities. Whether it will be high or low will depend upon the prime cost of moving the particular commodity and upon the nature of the demand curve. After the rate has been adjusted to the most profitable point, a change either upward or downward will reduce the railroad's profit. The contribution to overhead may be equal to, greater than, or less than the pro-rata share of overhead expenses. If the contribution to fixed expenses is less than the pro-rata share it is still inadvisable to increase the rate, for the increase although increasing the profit per unit of traffic would reduce the total contribution to fixed expenses.

DISCRIMINATION IN PASSENGER FARES

Discrimination may exist in passenger fares as well as in freight rates. The same forces which cause railroads to classify freight and adjust rates according to the conditions of demand also cause them to provide different classes of passenger service at different fares. In European countries three classes of passenger service have commonly been provided, and the income and social status of the passenger determine to a large extent the class of accommodations which he will purchase. The differences in fares do not always measure differences in cost of service. In the United States there has been less classification in passenger service, although the Pullman service and the coach service represent two distinct classes of services at different prices. The granting of low commutation fares, tourist fares, special holiday fares, and other special fares of various sorts are clearly examples of differential pricing. They represent an effort to obtain traffic that would not move at regular rates.

DO PREFERENTIAL RATES BURDEN OTHER TRAFFIC?

Charging what the traffic will bear, although practiced since the beginning of railways, has been severely criticized. The most common criticism is that the low rates on low-grade traffic result in higher rates on other traffic. The low-grade traffic, it is alleged, is subsidized by higher rates on the high-grade traffic. The favored consumers are considered parasitic on other consumers. "If A wants a thing and is prepared to pay its cost," says one writer, "there is . . . no reasonable excuse for refusing to let him have it," and "it is perfectly inequitable to charge him more than its cost in order that a different thing may be furnished at less than cost to some one else."²⁰ And as to the preferred

²⁰ Edgerton, H. W., "Value of the Service as a Factor in Rate Making," 32 *Harvard Law Review* 516, 544-545 (1919).

traffic, the same writer says: "Traffic which will not bear the cost of carrying it ought not to be carried. Its owners have no vested right to live at other people's expense, and that is what happens if they pay only part of the cost of their service while the utility collects the rest from others."³⁰ It is clear that the writer quoted believes that the low rates on some traffic throw a burden on other traffic. Of course it is true that if some traffic is carried at less than average cost, some must be charged more than average cost. But the implication that the low rates on some traffic mean that other traffic must be charged more than it otherwise would have been is entirely erroneous. If the distinction between constant and variable expenses has been fully grasped it will be apparent that preferential rates relieve rather than increase the burden on other traffic if two conditions are fulfilled. These are that the rate must more than cover the direct costs; and that the traffic will not move at higher rates. When these conditions are fulfilled preferential rates are of benefit to all concerned. As will be pointed out in a later chapter, however, less-than-cost rates that divert traffic from one form of transportation to another may result in economic waste, and are sometimes inconsistent with attempts to coordinate all forms of transportation and assure each form of transport that traffic which it is best able to carry.³¹

MONOPOLY PROFITS

The second major charge against the practice of charging what the traffic will bear is that it leads to monopoly profits. By exacting the most profitable rate from each class of traffic, the railroad may secure large profits, and absorb an unnecessarily large share of the social income. There is no reason why the users of transportation facilities should pay rates in excess of the amount necessary to pay operating expenses and a fair return on the capital invested. In other words, the public can, through government ownership, have transportation at cost, and it will not tolerate a system which requires them to pay much more. This makes it necessary to limit the amount which the railroad can exact for its services. The problem of regulating the general level of rates will be considered more fully in subsequent chapters. It is generally understood that the practice of charging what the traffic will bear is justifiable only as a method of distributing the constant expenses of the

³⁰ *Ibid.*

³¹ Ch. XXXIV.

business, including the return on capital, over specific items of traffic. It does not justify the exaction of rates which give monopoly profits.³²

EXCESSIVE RATES ON PARTICULAR COMMODITIES AND HAULS

Low rates on low-grade traffic are justified on the ground that they contribute to the overhead expenses of the railroad and relieve the burden on other traffic. Low rates on low-grade traffic make reductions possible on other traffic. But there is no force which compels a lowering of the rates on high-grade traffic, unless it be the action of the state which controls the rates. The principle of charging what the traffic will bear justifies preferential rates on low-grade traffic, and it should bring rate reductions on high-grade traffic. Charging what the traffic will bear does not justify higher rates on high-grade traffic than would be charged if the low-grade traffic did not move. This is evidently what Ripley had in mind when he said that the cost-of-service principle must be used as a check upon the value-of-service principle to prevent rates on high-grade commodities from becoming extortionate. Stated in another way, the practice of discrimination should, in so far as possible, be discrimination downward, and not upward.

It is sometimes alleged that high rates on high-grade traffic are just, even if they amount to more than the full cost of service which may be reasonably apportioned to the traffic in question. It is a mark of justice in the rate structure, according to this view, to charge valuable articles high rates. This idea has its origin in a supposed analogy between railroad rates and taxes. Taxes are often imposed on the principle of ability to pay—a method of taxation which is equitable and just. But the analogy between transportation charges and taxes is not perfect. The valuable articles are not necessarily luxuries consumed by the rich, nor are cheap articles necessarily consumed largely by the poor. Hence there is no necessary relationship between the ability of commodities to pay high freight rates, and the ability of the consumers to pay taxes. And if there were such a relationship, should not the state instead of the railway company levy the tax? It is difficult to see why shippers of valuable articles are not entitled to favorable rates. Valuable articles are often articles which are strictly limited by nature, or which can be produced less easily than others. Would it not be a distinct economic gain to the

³² This is the view of most economists. See Jones, *op. cit.*, p. 88; Bauer, John, *Effective Regulation of Public Utilities* (New York, Macmillan, 1925), p. 280. The contrary view will be discussed in ch. XV.

community to have the transportation rates as low upon such goods as on others?³³ To impose a high rate upon these commodities adds another obstacle to the natural difficulties in the way of obtaining a plentiful supply of them.

Our conclusion is that valuable goods should not be charged more than a fair share of the costs of transportation simply because they can stand it. Preferential rates may, however, be granted on low-grade commodities, and the contribution which the low-grade commodities make to overhead should enable the railroad to reduce further the rates on other articles.

If the principle of charging what the traffic will bear must be modified to prevent excessive rates on valuable commodities, it must likewise be modified to prevent a railroad from charging excessive rates on particular hauls. If a railroad may vary its charges according to the profits of the shippers it is in a position to dictate what profits its customers shall receive, and it can absorb differential gains arising from superior location and superior business management. A railroad should not be permitted to deprive a locality of its advantages of location by rates that are arbitrarily high.

COST ALLOCATIONS AND RATE MAKING

The principle of charging what the traffic will bear must be modified to prevent the exaction of monopoly profits, and to prevent unnecessarily high rates on the traffic that can stand them. There is a school of thought, however, which believes that overhead costs should be allocated to particular kinds and units of traffic and that all rates should be based on these allocations. The advocates of this view maintain that cost accounting has developed into a science and that practically all costs can be allocated.³⁴ This view seems to rest upon a failure to understand the economic principles involved. It is true that all costs can be allocated, but as one writer has expressed it, "that fact of itself is no more signifi-

³³ Robinson, M. H., "Railway Freight Rates," 18 *Yale Review* 122, 147 (1909).

³⁴ Typical expressions of this view are found in *Buell v. Chicago, Milwaukee & St. Paul Ry. Co.*, 1 Wisconsin Railroad Commission 324, 341 (1907); Meyer, B. H., "Memorandum Relating to the Analysis of Operating Expenses of Railway Companies," 19 *Proceedings of the National Association of Railway Commissioners* 103 (1907); Erickson, Halford, "The Basis of Reasonable Rates," 9 *American Economic Association Publications* (third series), 95, 100 (1908); Cooke, M. L., "True Cost-Finding—What It Can Do for the Railroads," 86 *Annals of the American Academy of Political and Social Science* 205 (1919).

cant than is the possibility of obtaining an arithmetical average of any fortuitous collection of numbers."³⁵

The fundamental fallacy in any apportionment of expenses that do not vary with the volume of traffic lies in the fact that the cost depends upon the volume of traffic, and the volume of traffic depends upon the rate charged. To some extent cost of carriage is a function of the rates, not the rates of the cost; or, as Professor Harbeson has put it, "the overhead cost per unit is price determined rather than price determining."³⁶ "Cost accountants," says G. P. Watkins, "are too likely to assume relations as fixed which may change as a result of prices based upon their cost analysis."³⁷ If cost apportionments, for instance, result in rates greater than the most profitable rate, the railroad will lose by charging that rate. If the cost allocation should give the most profitable rate, it would be the result of pure chance. The advocates of cost apportionments argue that their method is the only "scientific" way of making rates, but nothing could be more unscientific than an attempt to base rates on cost in disregard of the conditions of demand.

It should not be inferred from the foregoing that cost accounting has no place in railroad rate making. It is often indispensable. As will be pointed out shortly, recent studies indicate that railroad costs are variable to a larger extent than was formerly thought to be the case, except for very short periods of time. If this is so, it is probable that more emphasis should be placed on long-run average costs in the making of rates, particularly when traffic is increasing. Even though rates are not to be based strictly on cost allocations, it is often desirable to know the fully allocated costs of transporting particular commodities or kinds of traffic. It has already been pointed out that excessive rates on particular commodities and hauls will result from an unrestricted application of the principle of charging what the traffic will bear. Cost determinations at least provide a standard by which to measure the extent of deviation from cost-of-service rates, and so are helpful in keeping such deviations within reasonable bounds. Equally important is the necessity of preventing less-than-cost rates when the traffic can and should bear its full proportion of costs, and here again cost accounting performs a useful service. Cost accounting is also important in determining the

³⁵ Watkins, G. P., "The Theory of Differential Rates," 30 *Quarterly Journal of Economics* 682, 696 (1916).

³⁶ Harbeson, R. W., "The Cost Concept and Economic Control," 17 *Harvard Business Review* 257, 263 (1939).

³⁷ Watkins, G. P., *op. cit.*, p. 697.

extent to which rate levels may properly be higher or lower in one area than in another. The recent rise of new forms of transport to compete with railways has given further importance to cost finding. Any system of making rates that seeks to preserve to each form of transport that traffic which it can carry most economically requires a knowledge of both out-of-pocket and fully allocated costs of transportation by the competing modes of transport.³⁸

IS THE ASSUMPTION OF UNUSED CAPACITY VALID?

The argument for differential charging is based on the assumption of unused capacity. It is sometimes argued that the growth of traffic has brought about a condition in which there is little unused capacity. For this reason the law of increasing returns and the motive to discriminate is said to have lost its force.³⁹

If a railroad were not able to expand its plant the disappearance of unused capacity would mark the beginning of the disappearance of discrimination. The railroad would tend to raise the rates on the low-grade traffic since the low-grade traffic would interfere with the movement of more profitable traffic. If the growth of traffic continued, it would eventually bring all subnormal rates to a higher level. This situation does not occur in actual practice because the railroad can and will expand its facilities as traffic grows. It is true, nevertheless, that there is less incentive to grant preferential rates when a further expansion of traffic demands an enlargement of existing railroad facilities.

It cannot be conceded, however, that the growth of traffic and the disappearance of unused capacity (assuming for the moment that such a condition exists) will result in the complete disappearance of discriminating rates. There are several reasons for this.

In the first place, if all railroad rates were put upon a cost basis, the condition of unused capacity would presumably return. A considerable degree of differentiation is probably necessary to utilize existing facilities. In the second place, a railroad that finds it necessary to expand its facilities does not have to expand them all. Strictly speaking, traffic will not be sought which does not cover the additional capital cost and other costs occasioned by the enlargement of the plant, but even so, this may be less than the full share of all overhead costs. The extra traffic

³⁸ See ch. XXXIV.

³⁹ This view is taken by R. J. McFall in "Railway Monopoly and Rate Regulation," 69 *Columbia University Studies in History, Economics and Public Law* 1 (1916); also by Owen Ely in *Railway Rates and Cost of Service* (Boston, Houghton Mifflin, 1924).

requires the enlargement of some facilities, but it enables other portions of the plant to be utilized more nearly to capacity without additional expense. A third reason for continuing discrimination lies in the fact that a large plant may be more efficient than a smaller one. The principle of decreasing costs may be operating because of the greater efficiency of a large plant. To what extent there is actually an economy from this source is difficult to say, but in so far as there is economy in the larger plant the motive for discriminating rates continues.

ARE RAILROAD COSTS LARGELY CONSTANT?

The statement that railroad costs are to a large extent constant or invariable has not gone unchallenged.⁴⁰ It has been claimed that railroad expenses are predominantly variable except for very short periods of time.

This view is based on the observation that railroads find it possible to vary expenditures in accordance with the traffic carried and the revenues available. Standards of maintenance, it is pointed out, are flexible, and they can be adjusted to the volume of traffic carried. Even the return on capital is said to be variable, except for short periods of time, since the size and character of the physical plant and the capital invested can be adjusted to the volume of traffic available.

Statistical proof of the variability of railroad expenses has been sought in two ways: first, by showing that over a period of time railway expenditures have actually fluctuated with traffic volume; and second, by showing that unit costs of operation are nearly the same on railroads of different traffic densities. In the latter case, however, it is conceded that on lines of very thin traffic unit costs are higher than on lines having greater traffic density.

Figures showing that railway expenditures vary over a period of time with the volume of traffic must be accepted with some qualification. This is because technical improvements and changes in operating technique affect the figures. So also do changes in wage rates and in the prices of materials and supplies. The practice of deferring maintenance in times of depression is a practice, as has already been noted, which gives an appearance of variability to railroad expenses. Even though standards of maintenance are not rigid, it remains true that much of

⁴⁰ See particularly Healy, Kent T., *The Economics of Transportation* (New York, Ronald Press, 1940), ch. 11; and Ashton, Herbert, "Railroad Costs in Relation to the Volume of Traffic," 30 *American Economic Review* 324 (1940).

the deferment of maintenance during lean years represents a consumption of capital. Expenditures and costs are not synonymous.

Figures which tend to show that unit costs are nearly the same on railroads of differing traffic densities demonstrate that operating methods, standards of maintenance, and the size and character of the physical plant can be adjusted to the volume of traffic available. It must be remembered, however, that when a railroad is faced with declining traffic and unused capacity it will resist any shrinkage in the physical plant. The railroad will endeavor, by discriminating charges, to maximize its return in order to avoid the necessity of shrinking the size of the plant. In other words, although the force of circumstances may ultimately force a reduction in costs somewhat in proportion to the decline in traffic, the railroad, in an effort to avoid this result, will adopt rate-making policies identical to those which would be adopted if expenses and investment could not be reduced.

A detailed study of the variability in railroad expenses in recent years has been made recently by Dr. Ford K. Edwards, head cost analyst of the Interstate Commerce Commission. He concludes that over a long period of time between 70 and 80 percent of railroad operating expenses, including rents and taxes, are variable, and that if a 4-percent return on investment is included in the costs, the variable expenses are from 70 to 75 percent of the total.⁴¹ These figures are to be compared with the one-third to one-half commonly considered in the past to be variable.⁴²

The difference between the earlier and the more recent findings can be explained in various ways, but two points require mention in order to avoid confusion. In the first place, the more recent inquiries refer to a longer period of time—in fact, a period long enough to permit changes in the physical plant. The older discussions for the most part assumed a given physical plant, and were considering fluctuations of traffic within the capacity of that plant.

In the second place, the earlier studies referred to a situation in which the volume of traffic handled by the railroads was much less than that handled by them in recent decades. Even the later studies demonstrate that a much larger proportion of the expenses are constant on lines of thin traffic. At the time the first inquiries into this question

⁴¹ *Rail Freight Service Costs in the Various Rate Territories of the United States*, 78th Cong., 1st sess., Senate Document No. 63 (1943), p. 75.

⁴² See p. 137, *supra*.

were made the traffic density of the railroads as a whole was much less than it is today.

Notwithstanding the inherent weaknesses in any attempt to measure the extent of variability of railroad expenses from available statistical data, we may conclude that constant expenses are not so large a share of the total expenses as was formerly thought to be the case, except for very short periods of time, or on lines having very light traffic.

The more recent analyses have not undermined the theoretical basis of differential charging. They definitely confirm it, but find less scope for its exercise than has traditionally been assumed. The conclusions to be drawn from these studies are that more attention should be paid to the long-run behavior of costs in making rates, particularly in a period when the volume of traffic is growing. Out-of-pocket-cost rate making has probably been overdone, and traffic so acquired has in the long run increased expenses to a greater degree than was assumed would be the case when the rates were made. On lines of light traffic density, however, and on all railroads when unutilized capacity appears, the railroads will continue to find it advantageous to resort to discriminating rates to obtain additional traffic or to retain traffic that is in danger of being lost to competing forms of transport.

SELECTED REFERENCES

The literature on railway rate theory is extensive, and only a few of the more important references can be given here. Among the best of the early treatments of the subject are the following: Dupuit, "De la Mesure de l'Utilité des Travaux Publics," 8 *Annales des Ponts et Chaussées*, 2d series, 332 (1844); also by the same author, "De l'Influence des Péages sur l'Utilité des Voies de Communication," 17 *Annales*, etc. 170 (1849); Dionysius Lardner, *Railway Economy* (New York, Harper's, 1850). A. T. Hadley, *Railroad Transportation, Its History and Its Laws* (New York, Putnam's, 1885) is classic (for rate theory, chapters IV, V, VI, and Appendix II). Mention should be made also of E. R. A. Seligman, "Railway Tariffs and the Interstate Commerce Law," 2 *Political Science Quarterly* 223 (1887); W. M. Acworth, "The Theory of Railway Rates," 7 *Economic Journal* 317, 322 (1897); and by the same author, *The Railways and the Traders* (London, John Murray, 1891); H. G. Brown, "The Basis of Rate-Making as Affected by Competition versus Combination of Railroads," 16 *Yale Review* 79 (1907).

Among the textbook discussions of the theory the following are good: W. M. Acworth, *The Elements of Railway Economics* (Oxford, Clarendon Press, 1904); W. Z. Ripley, *Railroads: Rates and Regulation* (New York, Longmans, 1912), chs. II and III; Douglas Knop, *Outlines of Railway Economics* (London, Macmillan, 1913); H. B. Vanderblue and K. F. Burgess, *Railroads: Rates,*

Service, Management (1923), ch. VII; Eliot Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. IV; H. G. Brown, *Transportation Rates and Their Regulation* (New York, Macmillan, 1925), ch. I; S. R. Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XVI; Truman C. Bigham, *Transportation: Principles and Problems* (New York, McGraw-Hill, 1946), pp. 99-116.

J. B. Clark's presentation of railway rate theory in *Essentials of Economic Theory* (New York, Macmillan, 1907), chs. XXIII and XXIV, is excellent and somewhat different from the usual presentation.

For analyses of railway costs which tend to show greater variability than early writers assumed see M. O. Lorenz, "Cost and Value of Service in Railroad Rate Making," 30 *Quarterly Journal of Economics* 205 (1916); J. M. Clark, *Studies in the Economics of Overhead Costs* (Chicago, Univ. of Chicago Press, 1923), chs. XIII and XIV; Kent T. Healy, *The Economics of Transportation* (New York, Ronald Press, 1940), ch. 11; and Herbert Ashton, "Railroad Costs in Relation to the Volume of Traffic," 30 *American Economic Review* 324 (1940). The most complete analysis of the nature of railroad costs in recent years is by Ford K. Edwards in *Rail Freight Service Costs in the Various Rate Territories of the United States*, 78th Cong., 1st sess., Senate Document No. 63 (1943), chs. IX-XII. For a defense of the contention that constant costs are important see E. W. Williams, Jr., "Railroad Traffic and Costs," 33 *American Economic Review* 360 (1943).

Professor Taussig's explanation of railway rates in terms of joint cost is presented in "A Contribution to the Theory of Railway Rates," 5 *Quarterly Journal of Economics* 438 (1891). The controversy between Pigou and Taussig over the joint-cost theory is in 27 *Quarterly Journal of Economics* 378-384, 535-538, 687-694 (1913). Professor Pigou's discussion of the theory in *Wealth and Welfare* (London, Macmillan, 1912) or in *Economics of Welfare* (London, Macmillan, 1920) is a good presentation of the monopoly aspect of railway rates. The reading of Pigou's discussion should be preceded by a reading of his chapters on monopoly price. The literature of railway rate theory is reviewed in D. P. Locklin, "A Review of the Literature on Railway Rate Theory," 47 *Quarterly Journal of Economics* 167 (1933). The following recent discussions of the subject deserve special mention: W. M. Daniels, *The Price of Transportation Service* (New York, Harper's, 1932); and D. H. Wallace, "Joint and Overhead Cost and Railway Rate Policy," 48 *Quarterly Journal of Economics* 583 (1934).

CHAPTER VIII

RAILROAD RATE STRUCTURES

THE preceding chapter developed the fact that railroads do not charge a uniform rate on all articles, nor a uniform rate per mile for different hauls. To charge on such a basis would be inconsistent with both cost of service and value of service.

Differentiation between commodities, however, does not result in a different rate on each and every commodity carried. Consolidated Freight Classification No. 15, which was in effect in 1942, provided ratings on over 10,000 different articles or groups of articles.¹ There are some 35,000 railroad stations in the United States to and from which rates must be provided.² To quote rates on each of these commodities between all stations, or from such stations as may be points of origin to such points as might be destinations, would make freight tariffs even more voluminous than they are at present. Tariff simplification demands the grouping of commodities so that rates can be quoted between specific points on a limited number of classes instead of on thousands of individual commodities. A further reduction in the number of rates to be quoted is obtained through grouping of many points of origin and destination for the purpose of rate making, and, to some extent, by the use of combinations of local rates instead of specific through rates. But even so, it has been estimated that there are approximately 49,000,000 individual freight rates covering shipments between different points in the United States.³

Freight classification is the grouping of the thousands of commodities into a limited number of classes for the purpose of rate making. A freight classification is an alphabetical list of articles together with the "rating" which each commodity takes. The "rating" is the class or group into which the article is placed for the purpose of quoting freight charges. The rating should be distinguished from the rate. The latter is the charge, usually in cents per hundred pounds or per ton, for transporting a commodity or class of freight between specific points. The classification gives the rating; a freight tariff gives the rate.

¹ Board of Investigation and Research, *Report on Interterritorial Freight Rates*, 78th Cong., 1st sess., House Doc. No. 303 (1943), p. 23.

² Turney, J. R., *Rails Can Come Back* (an address, mimeographed, 1935).

³ Bogen, Jules I., *Analysis of Railroad Securities* (New York, Ronald Press, 1928), p. 73.

CLASSIFICATION TERRITORIES

At present there are three major freight classifications in the United States: the Official, Southern, and Western. Each is applicable in a certain territory or area. Official Classification applies in the northeastern part of the United States, that is, east of the Mississippi River and Lake Michigan, and north of the Ohio River.⁴ Southern Classification applies

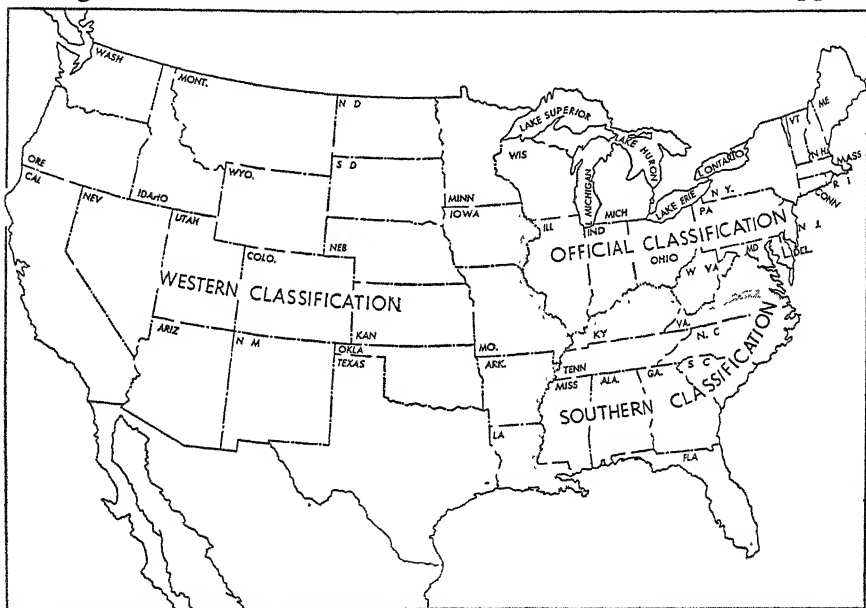


FIG. 23.—Freight Classification Territories.

in the area south of Official Classification Territory and east of the Mississippi River. Western Classification applies west of the Mississippi River and Lake Michigan. The area covered by each classification is shown in Fig. 23.

⁴ The boundaries of Official Classification were more precisely defined by the Interstate Commerce Commission in *Class Rate Investigation, 1939*, substantially as follows: Lake Michigan, including west-bank car-ferry points on Official Territory traffic, south to Milwaukee, Wis., thence the line of the Chicago, Milwaukee, St. Paul & Pacific Ry. (the Milwaukee) to Rugby Jct., Wis., thence the line of the Minneapolis, St. Paul & Sault Ste. Marie to Duplainville, Wis., thence the line of the Milwaukee through Watertown to Madison, Wis., thence the line of the Chicago & North Western Ry. to Dodgeville, Wis., thence the line of the Illinois Central Railroad to the Illinois State line and west along the latter to the Mississippi River, thence south along the river, including west-bank crossing points on Official Territory traffic, to the confluence of the Mississippi and Ohio rivers, thence the Ohio River, including south-bank crossing points on Official Territory traffic, to Cincinnati, Ohio, thence east on the line of the Chesapeake & Ohio Ry. to Kenova, W. Va., thence on the main line of the Norfolk & Western Ry to its crossing with the line of the Virginian Ry. west of Roanoke, Va., thence on the Virginian Ry to Suffolk, Va., and thence on the main line of the Norfolk & Western to Norfolk, Va. 262 I.C.C. 447, 457.

In addition to the three major classifications there is an Illinois Classification, which applies on intrastate traffic within the State of Illinois, and to a limited extent on interstate traffic. The Illinois Classification ordinarily follows the Official Classification rating or the Western Classification rating, whichever is lower.⁵

Traffic moving from a point in one classification territory to a point in another generally moves under a single classification. It may be the classification applicable at point of origin, or the one applicable at destination. The freight tariff giving the rates between the two points will specify which classification applies. If there is no single through rate from a point in one classification territory to a point in another, and the shipment therefore moves under a combination of rates, two or more classifications will apply. The rate from the point of origin to the border point would be subject to the classification applicable in the origin territory, and the rate from the border point to final destination would be subject to the classification applicable in the destination territory.

CLASS DESIGNATIONS

In Official Classification there are seven classes as follows: Class 1, 2, 3, Rule 26, 4, 5, and 6. First-class rates are the highest in the series, and the others are successively lower. Rule 26 in Official Classification is a class that was inserted between Class 3 and 4. Rule 26 rates were originally made 20 percent less than Class 3.⁶ In Southern Classification the classes are numbered from 1 to 12, inclusive. In Western Classification there are ten classes: five numbered classes, 1 to 5, and five lettered classes, A to E.

In addition to the classes enumerated above, there are certain multiple classes in all three classifications. These are $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, D1 (double first class), $2\frac{1}{2}$ t 1 ($2\frac{1}{2}$ times first class), 3 t 1, 4 t 1. In recent years it has been the practice to give some articles ratings in terms of a percentage of first-class rates. Thus an article might be rated $37\frac{1}{2}$, which means that the rate would be $37\frac{1}{2}$ percent of the first-class rate. By introducing a considerable number of such ratings in the classifications the number of classes has in effect been greatly increased.

A sample page from Consolidated Freight Classification No. 16 is

⁵ See testimony of Leslie Lacroix in I.C.C. Docket No. 28300 and 28310. *Record*, pp. 3544-3545.

⁶ There was also a class known as Rule 25 which was inserted between Class 2 and Class 3, with rates 15 percent less than Class 2. This class has been merged with Class 3.

8765-8925

CONSOLIDATED FREIGHT CLASSIFICATION NUMBER 16

Item	ARTICLES	Less Carload Rates	Carload Minimum (Pounds)	Carload Rates
CABINETS—Continued:				
8765	Seed, in packages or wrapped, also CL, loose	1	20,000R	R26-4-4
8770	Shoe shining, built-in, steel, in boxes	2	24,000R	R26-4-4
8775	Thread, in boxes or crates	1	12,000R	2
8780	Towel, steel, in boxes	2	24,000R	4
8785 Cabinets or racks, grain germinating or sprouting:				
	SU, in boxes or crates	1	24,000R	4
	KD, or folded, in boxes or crates	2	24,000R	4
8790 Cages, animal, noibn:				
	SU, in boxes or crates	1½	10,000R	1
	KD, in boxes or crates	1	20,000R	3
8795 Cages, bird:				
	SU, not nested, in boxes	D1	12,000R	2
	SU, nested, see Note, item 8800, in boxes	1	12,000R	2
	KD, parts nested or folded flat, in boxes	1	12,000R	2
8800	Note—Nested ratings also apply when 3 or more of the articles are nested together so that each lower article is enclosed within each upper article ½ of its height or more.			
8805 Cages, menagerie, other than vehicles:				
	SU, loose or in packages (glass parts in boxes)	1½	10,000R	1
	KD, in packages (glass parts in boxes)	2	24,000R	R26-4-4
8810	Calcite, roasted, granular form, treated or coated, clinkered and burned to a dead state, LCL, in bags or barrels; CL, in packages or in bulk	4-50-4	60,000	6-8-C
8815	Calcium lineolate pulp or calcium salt of fatty acids, LCL, in barrels; CL, in bulk or in packages	R26-4-4	36,000	5-6-5
8820 CAMERAS, CINEMA OR PHOTOGRAPHIC MATERIALS:				
8825	Backgrounds or scenery, photographers', in boxes or crates	1	12,000R	2
8830 Camera stands or tripods:				
	SU, in boxes or crates	1½	12,000R	2
	KD, or folded, in boxes or crates	1	12,000R	2
8835	Cameras, in boxes	1	12,000R	2
8840	Dry plates or films, unexposed, see Note 1, item 8845, in boxes	1	30,000	3
8845	Note 1.—Ratings also apply on unexposed film in fibre drums meeting requirements of I C C Specifications 21-A, Agent W S Topping's Tan, # I C C No 4, MF-I C C No 2, except that the weight of contents may exceed 200 lbs but must not exceed 150 lbs			
8850 Lenses, camera, in boxes				
8855	Moving picture film cores, magazines or reels, empty, in barrels or boxes	D1	10,000R	1
8860	Moving picture films, exposed, noibn, see Note 2, item 8865	3	30,000	37½-37½-5
	Released to value not exceeding \$1 00 per pound, in boxes	1	AQ	1
	Released to value exceeding \$1 00 per pound but not exceeding \$7 50 per pound, in boxes	D1	AQ	D1
	If declared or released value exceeds \$7 50 per pound or shipper declines to declare or release value Not taken.			
8865	Note 2.—The value declared in writing by the shipper, or agreed upon in writing as the released value of the property, as the case may be, must be entered on shipping order and bill of lading as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per pound for each article." If consignor declines to declare value or agree to released value in writing, the shipment will not be accepted. (Ratings herein based on released value have been authorized by the Interstate Commerce Commission, as to rail and motor carriers, in Released Rates Order 1049 and MC-180 of October 14, 1939, subject to complaint or suspension.) (Charges herein based on released value have been authorized by the Pennsylvania Public Utility Commission in Released Valuation Rate Docket No. 17 of January 15, 1940, subject to complaint.) (Ratings herein based on released value have been authorized by the Public Utilities Commissioner of Oregon, Order No. 12078 of June 16, 1943.)			
8870	Moving picture films, exposed, toy: 200 feet or less in length, in boxes	1½	12,000R	2
	Over 200 feet in length Not taken.			
8872	Outfits, amateur printing and developing, in boxes	2	30,000	R26-4-4
8873	Outfits, amateur retouching, in boxes	2	30,000	R26-4-4
8875	Outfits, motion picture film developing, or parts, in boxes or crates	2	16,000R	3
8880	Photographers' materials, noibn, in boxes	1	12,000R	2
8885	Screens, moving picture, noibn, in boxes	1	12,000R	2
8890	Screens, moving picture, portable (screens on rollers in cabinets, or made of sheet aluminum, framed, or of coated pulphboard, framed or not framed; area of screens not to exceed 25 square feet), in boxes or crates	1	20,000R	3
8892	Tanks or trays, photographers, cooling or heating, in boxes or crates	2	18,000R	R26-4-4
8895 Candelers, in boxes				
8897	Candles, tear gas, packed in wooden boxes	1	20,000R	3
8900	Candles, noibn, in barrels or boxes	1½	20,000R	1
8905	Candles and glass cups or tumblers combined, see Note, item 8910, in barrels or boxes	3	36,000	5-6-5
8910	Note —One brass shield may be included in each barrel or box.			
8915	Candiesticks, wax or moulded wood, in boxes	2	24,000R	R26-4-4
8920	Candiesticks, wooden, noibn, in boxes	1	20,000R	R26-4-4
8925	Candy cups, tinfoil, in boxes	1	20,000R	3

For explanation of abbreviations, characters and ratings, see page 169; for packages, see pages 409 to 432.

FIG. 24.—Sample Page from Consolidated Freight Classification No. 16.

shown in Fig. 24. Certain points regarding the Classification and its use are illustrated by the sample page. Notice that carload and less-carload ratings are different unless "AQ" appears in the carload minimum weight column, in which case the rating is an "any-quantity" rating and applies regardless of the size of the shipment. The carload minimum weight is the smallest amount which constitutes a carload, but on smaller shipments the carload rating and rates will apply if the carload rate on the minimum carload weight results in a smaller charge than the less-carload rate on the actual weight of the shipment. When "R" appears after the carload minimum weight, the minimum weight is subject to Rule 34 of the Classification, which means that the minimum weight will vary with the size of the car. The stated minimum in such cases applies to the smaller cars, and the minimum increases for the larger cars. When three ratings are shown on an article, the first is the rating in Official Classification; the second, the rating in Southern Classification; and the third, the rating in Western Classification. If four ratings are given, the second is the rating in the Illinois Classification. When only three ratings are given, the Illinois Classification rating is the same as the Official. Numbers higher than 12 in the rating columns (except R26) are not class designations in the usual sense, but mean that the rate on the item is the stated percentage of the first-class rate. Thus Item 8855, in Fig. 24, shows a carload rating of $37\frac{1}{2}$ in Official and Southern classifications, which means that the rate will be $37\frac{1}{2}$ percent of the first-class rate. In using the Classification the indentation of the various items should be carefully observed: Thus Item 8775, in Fig. 24, is not "Thread," but "Thread Cabinets," since the item is indented, and therefore subordinate to the heading "Cabinets" appearing at the top of the page. The letters "noibn" mean "not otherwise indexed by name." Item 8900 is "Candles; noibn, in barrels or boxes," while Item 8897, "Candles, tear gas," is a special kind of candle given a separate rating. A "noibn" rating does not apply if there is a more specific description of the shipment. The abbreviations "SU" and "KD" appearing frequently in Fig. 24 mean "set up" and "knocked down," and refer to the form in which an article is shipped. Many articles occupy much more space if shipped "SU" than if shipped "KD"; hence the differences in the ratings provided.

CLASSIFICATION COMMITTEES

Classifications are made by classification committees, one for each

of the classifications. These committees are maintained by the carriers concerned. The committees have a permanent organization and are constantly at work classifying new articles and considering changes in the classification. If particular railroads object to the rating given an article by the classification committee they may take independent action, and through the medium of "Exceptions to the Classification" publish ratings which are to apply on their lines.

In addition to the Official, Southern, and Western classification committees there is a committee known as the Consolidated Classification Committee which has jurisdiction over changes in the classification rules and regulations, commodity descriptions, and packing requirements, which, as a rule, are uniform throughout the United States.

Shippers who desire changes in the classification make their requests to the proper classification committee. Opportunity is given for the presentation of arguments in behalf of the desired changes. Since freight classification is the first step in rate making, and changes in freight charges can be made by changing the classification of an article as well as by changing the rate on the class in which the article falls, the Interstate Commerce Commission and other regulatory agencies have jurisdiction over the classifications. A shipper who cannot induce the classification committee to change a rating may appeal to the Interstate Commerce Commission or other regulatory body having jurisdiction if he can support his contention that the existing rating is unreasonable or otherwise unlawful.

CLASS-RATE RELATIONSHIPS

Until recent years there was no uniformity in the relationships between the rates on the various classes even within a single classification territory. As a result of the decisions of the Interstate Commerce Commission in a series of comprehensive class-rate cases, beginning in 1925, the relationships between the rates on the different classes of freight have been made uniform throughout each of the three classification territories, except in Western Classification Territory where two sets of relationships prevail, one covering the area between the Mississippi River and the Rocky Mountains, and the other the western part of the territory.

The class-rate relationships in the various territories are shown in Table XIII.

TABLE XIII

CLASS DESIGNATIONS IN THE THREE MAJOR CLASSIFICATIONS AND
RELATIONSHIP OF RATES ON EACH CLASS TO FIRST-CLASS RATES⁷

OFFICIAL		SOUTHERN		WESTERN		
Class Designation	Percent of First Class	Class Designation	Percent of First Class	Class Designation	Percent of First Class	
					Western Trunk- Line & South- Western	Moun- tain Paci- fic
1	100	1	100	1	100	100
2	85	2	85	2	85	85
3	70	3	70	3	70	70
Rule 26	55	4	55	4	55	60
4	50	5	45	A	45	50
5	35	6	40	5	37½	50
6	27½	7	35	B	32½	40
		8	30	C	30	30
		9	25	D	22½	25
		10	22½	E	17½	20
		11	20			
		12	17½			

DEVELOPMENT OF FREIGHT CLASSIFICATION

Freight classification antedates railroads. Freight moving by wagon or by canal had been classified for the purpose of levying charges long before the railroads were built. The railroads, however, developed much more elaborate classifications than were used by the earlier modes of transport. Originally, the number of classifications in force was large; sometimes a different classification was in effect on different portions of a single railroad. At one time there were as many as 138 distinct classifications in use in Eastern Trunk-Line Territory.⁸ The confusion caused by this state of affairs led to attempts by the carriers to reduce the number of freight classifications. The railroads were stimulated in this effort by the enactment of the Act to Regulate Commerce in 1887. The first Western Classification became effective in 1883, and the first Official Classification in 1887. The lines in the South adopted the classification of the Southern Railway & Steamship Association in 1889. This later became the Southern Classification.

⁷ From Board of Investigation and Research, *op. cit.*, p. 22.

⁸ This and other information concerning the history of classification is taken largely from the report of the Interstate Commerce Commission in *Suspension of Western Classification No. 51*. 25 I.C.C. 442, 453-459 (1912).

THE "CONSOLIDATED" FREIGHT CLASSIFICATION

For many years the three major freight classifications were published separately. In 1918, when the railroads were being operated by the Federal Government as a result of the emergency caused by our participation in World War I, an effort was made to consolidate the three classifications into a single volume. This required uniformity in the descriptions of articles so that the ratings could be shown for each article in each of the three classifications. A committee of experienced classification men from the Railroad Administration worked out a proposed "Consolidated Freight Classification." This was adopted by the Director General in 1919 with the approval of the Interstate Commerce Commission.⁹ Since then the three classifications have been published in a single volume.

UNIFORM CLASSIFICATION

Efforts have been made from time to time to establish a single freight classification for the whole United States. In 1888 the House of Representatives passed a resolution directing the Interstate Commerce Commission to prescribe a uniform classification. The Senate failed to act on the resolution since the carriers maintained that, if given time, they would work out a uniform classification themselves. An unsuccessful effort to establish such a classification was made in 1889. A uniform classification was drawn up by a committee chosen for the purpose by the principal traffic officers from the various rate territories. The Eastern carriers refused to adopt the new classification, and it is understood that the Western carriers were also opposed to its adoption. The Interstate Commerce Commission has many times referred to the desirability of establishing a single classification.¹⁰ In the Class-Rate Investigation of 1939 the Commission required the establishment of a single classification in which there would be thirty classes, ranging from 400 to 11 percent of first class, and that ratings be made uniform in all territories.¹¹ At time of writing such a classification had not been established.

Lack of uniformity in ratings in the different classifications has been the natural consequence of the fact that the classifications grew up

⁹ *Consolidated Classification Case*, 54 I.C.C. 1 (1919).

¹⁰ Early expressions of the Commission on the subject are collected in *Suspension of Western Classification No. 51*, 25 I.C.C. 442, 459-464 (1912). For a collection of later pronouncements see *Class Rate Investigation, 1939*, 262 I.C.C. 447, 462-465 (1945).

¹¹ 262 I.C.C. 447, 511.

separately. Classification is a matter of judgment, and it is hardly to be expected that different persons would arrive at the same conclusion concerning the proper class in which an article should be placed. This is particularly true when the rating assigned is a compromise between various and often conflicting cost-of-service and value-of-service factors. Differences in classification ratings may also reflect differences in producer interests in the different territories. The more important a commodity is in the economy of a particular area the greater will be the pressure by producers to obtain favorable rates on it.

Although a uniform classification is desirable, the attainment of uniformity is made difficult by the existing differences in the levels of first-class rates in the different territories. On some commodities differences in ratings have been established to offset, in whole or in part, the differences in the levels of first-class rates. Uniformity in classification is therefore bound up with the problem arising from differences in the levels of first-class rates. In the Class-Rate Investigation the Commission required that a single scale of class rates for application throughout the United States east of the Rocky Mountains should go into effect contemporaneously with the new classification.

"EXCEPTIONS TO THE CLASSIFICATION"

As previously pointed out, the classifications are made by the classification committees, but the railroads may publish "exceptions to the classification" if they are dissatisfied with the particular rating that a commodity is given by the classification committee. In recent years the classification exceptions have become even more important than the regular classifications. Many of the exceptions ratings have practically as wide a territorial application as the regular ratings which they displace. In Southern Territory approximately 31 percent of the commodity descriptions in the classification have been given exceptions ratings.¹² A study made by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission of the actual carload traffic which originated on September 23, 1942, disclosed that 10.7 percent of the carloads moved on exceptions ratings, while only 4.1 percent moved on regular classification ratings.¹³ According to an analysis of the exceptions ratings which was made by the Board of

¹² Board of Investigation and Research, *op. cit.*, p. 47.

¹³ Exhibit No. 228, I.C.C. Docket No. 28300, Table 2. The rest of the traffic, 85.2 percent, moved on "commodity rates."

Investigation and Research, the average reduction in the rates made by the exceptions ratings was from 20 to 25 percent.¹⁴

The view has been expressed that the growing use of classification exceptions has resulted from adherence by the classification committees to traditional classification principles under which high rates are generally placed on valuable articles, while the railroad traffic men, on the other hand, have sought to establish ratings which would permit the railroads to retain high-class traffic in the face of increasing motor-truck competition.¹⁵

COMMODITY RATES

Because of the limited number of classes provided by the freight classifications, and also because of the desire of carriers to make special or exceptional rates to meet particular conditions, the rail carriers establish "commodity rates." A commodity rate is a rate quoted directly on an article instead of through the medium of a classification.

Commodity rates are of three types. First, there are the commodity rates which are tied to the class rates, usually by being made a certain percent of the first-class rates, or less frequently, of some class other than first. When published as a percent of first class these rates are commonly known as "column rates." The rates on sugar in Official and Southern territories provide an example of commodity rates which are tied to the first-class rates. The standard basis for the rates on sugar in these territories is 22 percent of the Southern first-class rates for the same distance.¹⁶

A second type of commodity rate consists of those which are not tied to the class rates but which are, nevertheless, constructed on some systematic basis. These may be constructed according to a special distance scale, or they may be constructed on some other plan. Some examples of commodity-rate structures are shown later in this chapter.¹⁷

A third type of commodity rate consists of special point-to-point rates built upon no systematic basis but adjusted to meet the needs of some particular shippers or communities, or to meet some competitive

¹⁴ *Op cit.*, p. 48.

¹⁵ See Board of Investigation and Research, *Report on Rate-Making and Rate-Publishing Procedures of Railroad, Motor, and Water Carriers*, 78th Cong., 1st sess., House Doc. No. 363 (1944), pp. 39-40.

¹⁶ Board of Investigation and Research, *Report on Interterritorial Freight Rates*, 78th Cong., 1st sess., House Doc. No. 303 (1943), p. 145.

¹⁷ See pp. 197-198. *infra*.

condition. Such commodity rates may be quite isolated, applying only between a very limited number of points.

On many articles both class and commodity rates may be found, but if there is a commodity rate published to apply between two points, the commodity rate supersedes the class rate. Between points having no commodity rate on an article, the regular class rates apply. Many important commodities, such as coal, ore, cement, brick, grain, and livestock, practically always move on commodity rates. A study of the carload traffic moving on September 23, 1942, which was made by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission, indicated that approximately 85 percent of all carload traffic moved on commodity rates.¹⁸

FREIGHT TARIFFS

The rates for transporting the various commodities and classes of commodities between specific points are published in freight tariffs. These are of many kinds. Class tariffs contain the rates on the various classes shown in the classification. Commodity tariffs show the commodity rates. Sometimes both class and commodity rates are published in the same tariff. Commodity tariffs may be general or special. If general, they give the rates on many commodities. If special, they contain the rates on one or a number of closely related commodities. Local rates, that is, rates between points on a single railroad, are usually published by the individual railroads in what are known as local tariffs. Joint rates, that is, the rates between points on different railroads, are commonly published by agents of the participating carriers. These are called "agency tariffs." There are also special tariffs, such as special export or import tariffs, which quote rates to or from the ports on exported or imported articles. The geographical application of tariffs varies widely, some covering extensive areas, while others are quite limited in the area which they cover.

It has been estimated that there are about 75,000 freight tariffs in current use in the United States, ranging in size from a single page to over 1,200 pages.¹⁹ They are published in accordance with regulations prescribed by the Interstate Commerce Commission,²⁰ and are kept up to date by the issuance of supplements, only a limited number of which

¹⁸ Exhibit No. 228, I.C.C. Docket No. 28300.

¹⁹ Wilson, G. L., "Are Railroad Freight Rate Structures Obsolete?" 13 *Harvard Business Review* 179, 180 (1935).

²⁰ *Tariff Circular* No. 20.

may be in effect at one time. Tariffs are constantly being cancelled and reissued, or modified by supplement. Several thousand tariff publications containing changes in railroad rates are filed with the Interstate Commerce Commission every year. For the most part, railroad rates in the United States are published as specific point-to-point rates. This accounts for the large number of rates and the size of freight tariffs.

THE RATE-MAKING POWER

The power to make and change rates rests initially with the railroad companies. Usually the carriers in a given area act through "freight associations" or "bureaus" in making and changing rates. Although this is collective action on the part of the carriers, the right of independent action by individual carriers is recognized.²¹ There has been some question, however, as to whether collective action on the part of the carriers in making rates may not be in violation of the Sherman Antitrust Act.²²

It is often assumed that all interstate rates are prescribed by the Interstate Commerce Commission, or at least that all the rates must be approved by it. Neither assumption is correct. The Interstate Commerce Commission has regulatory powers over the rates, but subject to the requirement that rates must be just and reasonable or not otherwise unlawful, the carriers may prescribe rates which they please. The importance of the Commission's authority is not to be denied, but thousands of rates are changed each year at the behest of the railroads without any interference by the Commission and without any specific determination of the reasonableness of the new rates.

RATE SYSTEMS

Freight rates often seem to be constructed most haphazardly and without any attempt to build up a systematic and logical rate structure. This is the natural result of charging what the traffic will bear. The general effect of rate regulation, with its attempt to remove unjustifiable inequalities and discriminations, has been to bring about more systematic rate structures. But even before the development of government regulation, the railroads had accomplished something toward this end. A notable example was the Trunk-Line rate structure covering

²¹ For a description of rate associations or bureaus, and of their organization and procedures, see Board of Investigation and Research, *Report on Rate-Making and Rate-Publishing Procedures of Railroad, Motor, and Water Carriers*, 78th Cong., 1st sess., House Doc. No. 363 (1944).

²² See ch. XIV.

traffic between points in Central Freight Association Territory—the territory east of the Mississippi River, north of the Ohio River, and west of Buffalo and Pittsburgh—and the Atlantic ports and other eastern points.²³ This rate structure was replaced by the class-rate structure prescribed in *Eastern Class-Rate Investigation*.²⁴ There has been a tendency for a distinct rate system to develop, or to be prescribed, in certain well-defined rate territories.

RATE TERRITORIES

There are five major rate territories in the United States. They are known as Eastern or Official Territory, Southern Territory, Western

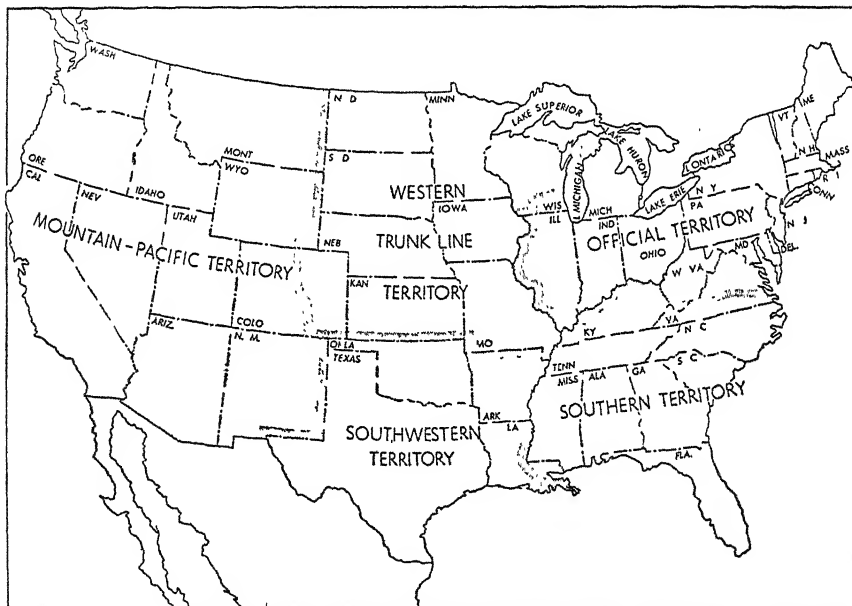


FIG. 25.—The Five Major Freight-Rate Territories.²⁵

Trunk-Line Territory, Southwestern Territory, and Mountain-Pacific Territory. The location of these territories is shown in Fig. 25. The territories are of particular importance in the class-rate structure, since each

²³ For a description of this rate structure see Ripley, W. Z., *Railroads: Rates and Regulation* (New York, Longmans, 1912), pp. 356-377; Jones, E., *Principles of Railway Transportation* (New York, Macmillan, 1924), pp. 148-157; Miller, S. L., *Railway Transportation: Principles and Point of View* (Chicago, A. W. Shaw, 1924), pp. 549-560.

²⁴ 164 I.C.C. 314 (1930); 171 I.C.C. 481 (1931); 177 I.C.C. 156 (1931); 203 I.C.C. 357 (1934).

²⁵ Taken from I.C.C., Bureau of Statistics, *Distribution of the Natural Resources of the United States by Freight Rate Territories*, Exhibit No. 1 in Docket No. 28300 (1941), following p. 3.

of the territories has a distinctive structure and level of class rates. Commodity-rate structures and levels may also vary in the different rate territories, but some of them disregard traditional territorial boundaries.

In Eastern or Official Territory there are three subterritories, not shown on the map in Fig. 25. These are New England, Trunk-Line, and Central Freight Association territories. New England Territory comprises the New England States and a small strip of New York east of the Hudson River. Trunk-Line Territory lies west of New England and the Atlantic Coast and extends to a line running southwardly just east of Buffalo, N.Y., Pittsburgh, Pa., Wheeling, W.Va., and Charleston, W.Va.²⁶ This line is commonly referred to as the Buffalo-Pittsburgh line. Central Freight Association Territory, also known as C.F.A. Territory or Central Territory, lies west of the Buffalo-Pittsburgh line.

DISTANCE RATES AND THE TAPERING PRINCIPLE

Since the cost of transporting freight increases with increasing length of haul, it is logical to put freight rates on a distance basis. A distance rate structure is one in which rates increase as distance increases, but this does not mean that rates must increase in proportion to distance.

Most distance rates are constructed on the tapering principle, that is, the rates increase with distance, but not so rapidly as distance increases. In other words, although the total rate or charge is greater for longer than for shorter distances, the rate per mile is less for the longer distances. It has sometimes been said that rates should increase as the square root of the distance.²⁷ In *Western Cement Rates*, however, the Interstate Commerce Commission found that rates constructed in such a manner would result in ton-mile earnings which were entirely too low for the long distances.²⁸

In the various class-rate scales which have been prescribed by the Commission the rates increase by a series of steps or blocks. The scales begin with five-mile blocks, and they are gradually increased in length to 25 miles. If the rates for each block are plotted on a scale and connected by a line, the general shape and progression of the scale is shown. The class-rate scales are shown in Fig. 26.²⁹

²⁶ *Robbins Flooring Co. v. Ann Arbor R. Co.*, 256 I.C.C. 129, 130 (1943).

²⁷ Talcott, T. M. R. Testimony in *Report of the Industrial Commission* (Washington, Government Printing Office, 1901), vol. IX, p. 630.

²⁸ 48 I.C.C. 201, 211 (1918).

²⁹ Rates shown do not include the increase of about 6 percent authorized in 1942 in 248 I.C.C. 545.

When plotted in this manner, the class-rate scales which have been prescribed by the Interstate Commerce Commission are shown to be composed of a series of four or five straight lines, each successive line making a smaller angle with the distance axis.³⁰ Thus, in the scale originally prescribed in *Eastern Class-Rate Investigation* the rate of progression changed at 75, 150, 300, and 700 miles.³¹ Rates of progression can also be shown by stating the increase in rates in each 100 miles. The first-class rates prescribed in the Eastern case increased from 30 cents to 56 cents, or 26 cents, in the first 100 miles. From 100 to 200 miles the increase was 17 cents; from 200 to 300 miles, 14 cents; and from 300 to 700 miles it was 12 cents for each 100 miles. Thereafter the increase was 10 cents for each 100 miles.³²

It should be observed that the rate of progression of a distance scale can be constant throughout, that is, the scale can be represented by a straight line, and yet the rates per mile will be lower for the longer distances if the initial rate is considerably above zero, as is practically always the case.

There are several reasons for not making freight rates increase in exact proportion to distance. In the first place, terminal costs are the same regardless of the length of the haul.³³ The longer the haul, the greater the distance over which the constant terminal cost can be spread. To use the illustration given by Ripley,³⁴ suppose there is a terminal cost of 50 cents a ton for handling certain freight, and a haulage or line-haul cost of one-half cent per ton-mile. For a haul of 10 miles the rate per mile would be $(50 + 5) \div 10$, or 5.5 cents. For a haul of 500 miles the ton-mile rate would be $(50 + 250) \div 500$, or 0.6 cent.

A second reason for the lower rates per ton-mile for longer hauls is that even the line-haul or conveyance cost is considered to be relatively lower for the longer hauls. This point was discussed by the Commission in the *Southern Class-Rate Investigation*. The Commission found that short-haul traffic, particularly that which moved 75 miles or less, was

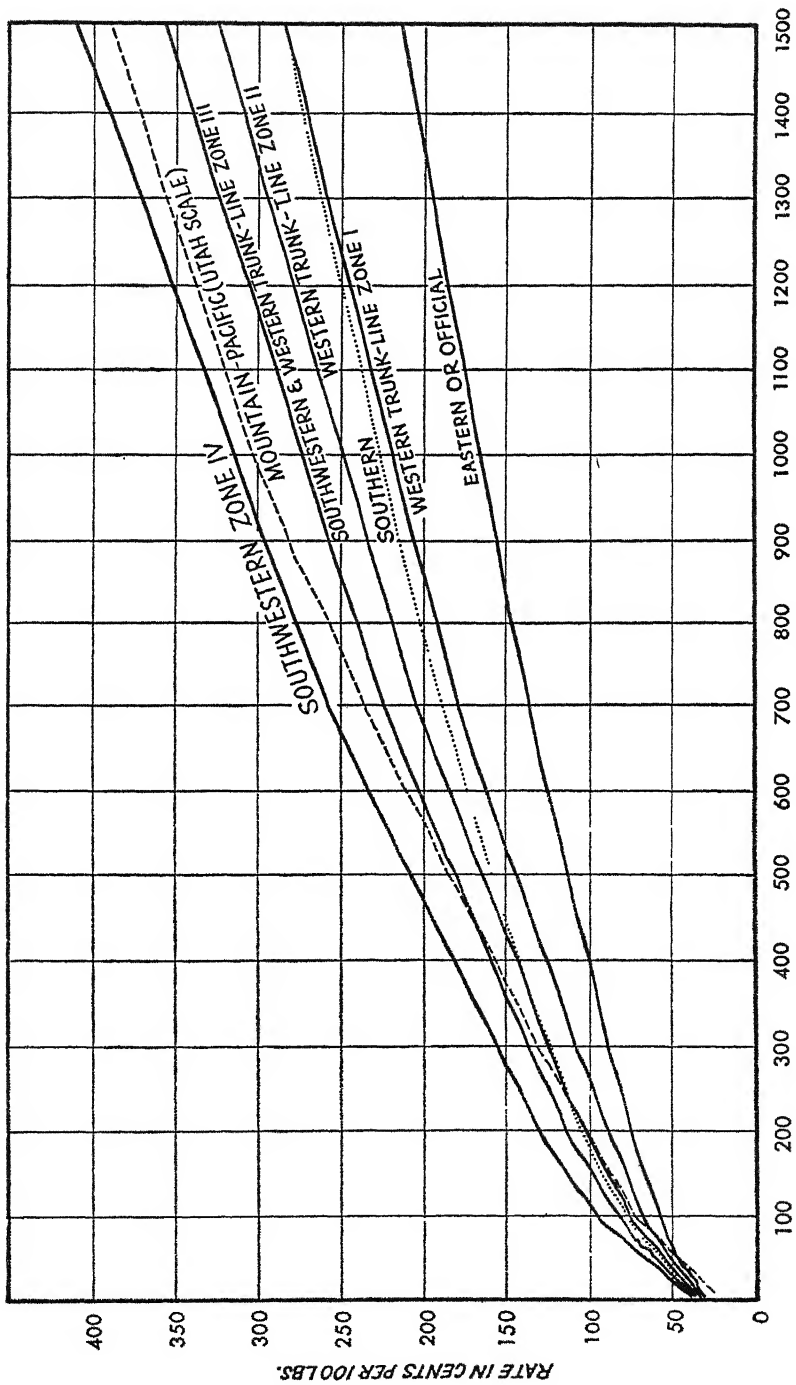
³⁰ For a study of the rates of progression of numerous rate scales prescribed by the Interstate Commerce Commission see I.C.C., Bureau of Transport Economics and Statistics, Statement No. 4351, *A Description of the Principal Class Rate Scales Prescribed by the Interstate Commerce Commission, etc.* (Washington, mimeographed, 1943).

³¹ 164 I.C.C. 314, 393 (1930).

³² Board of Investigation and Research, *Report on Interterritorial Freight Rates*, 78th Cong., 1st sess., House Doc. No. 303 (1943), p. 8.

³³ In the United States terminal charges are not separately quoted but are included in the freight rate.

³⁴ *Op. cit.*, p. 104.



DISTANCE IN MILES

FIG. 26.—Scales of First-Class Rates.

moved in local or "way" freight trains. For longer distances through freight trains may be used which make fewer stops and operate more efficiently. For distances in excess of 150 miles through freights were the general rule, so that on shipments moving long distances the proportion of the haul in expensive way freights was relatively small.³⁵ This reasoning has not gone unchallenged, however, and it is sometimes maintained that the long hauls require a succession of intermediate yard services which are expensive and which keep the costs more or less proportionate to distance.

A third reason for the use of the tapering principle is to prevent the rates from restricting the movement of long-distance traffic. This point has been previously mentioned.³⁶ If rates increased in proportion to distance, they would soon become so high as to prevent the movement of traffic. It is in accordance with the value-of-service principle of rate making to keep long-distance rates low enough to enable the traffic to move. The Interstate Commerce Commission has recognized this as a valid reason for tapering rate scales.³⁷

Tapering the rate scale is often carried further than can be justified by cost considerations. The soundness of this practice may sometimes be questioned. If the concession to the long-distance traffic induces the movement of traffic that would not otherwise be carried, of course the railroad gains by the practice; but if the result is only to substitute long hauls for shorter ones, with no gain in tonnage carried, the practice is of doubtful benefit to the railroads.

THE INITIAL RATE

The importance of the terminal charge in the construction of rate scales has already been noted. For the shortest distances the rates consist largely of the terminal charge. Terminal costs, therefore, largely determine the initial rate in a distance scale, although it is sometimes affected by motor-truck competition. In the Southern Class-Rate Investigation the scale started at 34 cents, first class, for distances of five miles or less.³⁸ In the Eastern Class-Rate Investigation the initial first-class rate prescribed was 30 cents;³⁹ in the Western Trunk-Line Case the scale

³⁵ 100 I.C.C. 513, 643 (1925).

³⁶ P. 141, *supra*.

³⁷ *Livestock—Western District Rates*, 190 I.C.C. 611, 627-628 (1933).

³⁸ 109 I.C.C. 300, 337 (1926).

³⁹ 164 I.C.C. 314, 467 (1930).

began at 32 cents in Zone I.⁴⁰ In the Class-Rate Investigation of 1939 the initial first-class rate in the new scale prescribed was 40 cents.⁴¹ In many cases the initial rates have been based on cost studies, and these rates seem to have influenced the Commission and interested parties in subsequent cases.⁴²

RATE OF PROGRESSION

Determination of the rate of progression of distance scales calls for the exercise of judgment. The rate of progression depends in part upon revenue needs of the carriers and in part upon the ability of traffic to move under high rates. In constructing rate scales the Interstate Commerce Commission has relied less upon calculations of transportation costs than upon the practical necessities of fitting the scale into existing rate levels and of joining them to rate structures in bordering territories.⁴³ In the Southern Class-Rate Investigation the carriers proposed a scale built around three "peg" points. The first was an initial rate of 30 cents, supported by cost studies; the second was a rate of \$1.45 for 330 miles, the first-class rate and distance from Cairo, Illinois, to Birmingham, Alabama. The third peg was \$1.60 for 460 miles, the rate and distance from Atlanta to the Ohio River. The carriers built a scale about these three rates. The Commission did not adopt the particular scale proposed by the carriers, but in this as in other cases it was apparently necessary to pay some attention to pre-existing rates as well as to rates in adjoining territories in order to minimize the disturbance caused by placing rates on a distance basis.⁴⁴

DIFFERENCES IN RATE LEVELS

If rates are to be put on a distance basis over any considerable area, the problem arises of determining whether a single scale shall be adopted or whether differences in conditions make it advisable to divide the territory into different areas, with different scales and rate levels for each area. In the major class-rate investigations which have come before the Commission in recent years there has been a tendency to

⁴⁰ 164 I.C.C. 1, 249 (1930).

⁴¹ 262 I.C.C. 447, 766 (1945).

⁴² For a more complete discussion of initial rates in distance scales, see Daggett, S., "Mileage Rates and the Interstate Commerce Commission," 46 *Quarterly Journal of Economics* 281, 295-299 (1932).

⁴³ *Consolidated Southwestern Cases*, 123 I.C.C. 203, 384 (1927).

⁴⁴ For further illustrations of fitting scales to existing rates, see Daggett, *op. cit.*, pp. 299-301.

prescribe a single scale of class rates for application over wide areas.

In the Eastern Class-Rate Investigation the Commission rejected the plea for a lower level of rates in Central Freight Association Territory, largely on the grounds that more favorable operating conditions were

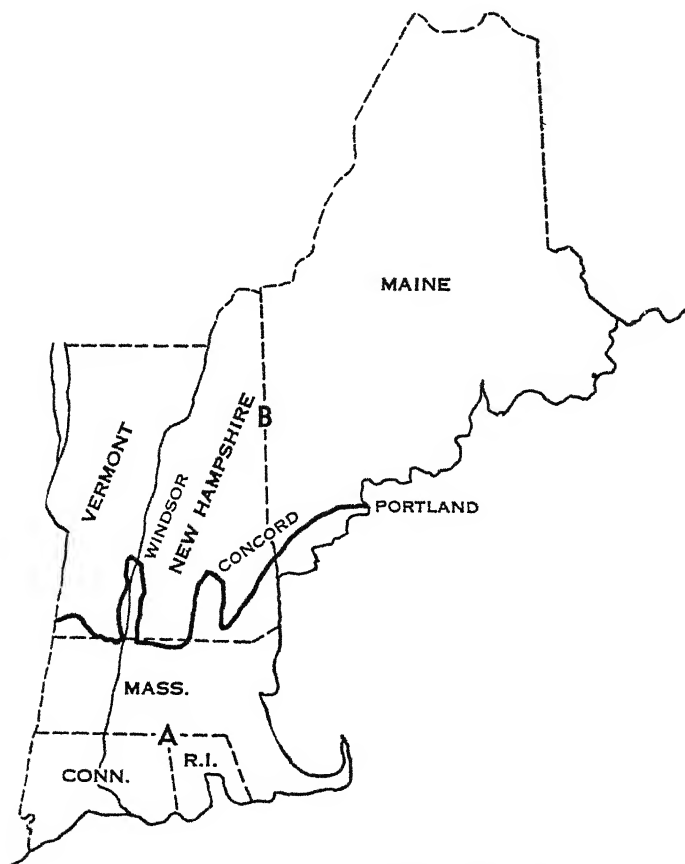


FIG. 27.—Zoning of New England Territory.

offset by a less favorable traffic density.⁴⁵ But higher rates were permitted in New England, and also in the northern part of the southern peninsula of Michigan, which was known as Zone C from an earlier decision of the Commission.⁴⁶ For distances in Zone C, arbitraries could be added

⁴⁵ 164 I.C.C. 314, 386 (1930).

⁴⁶ *C. F. A. Class Scale Case*, 45 I.C.C. 254 (1917); 98 I.C.C. 660 (1925).

which were about 10 percent of the Eastern basic scale. In New England the Commission established two zones, following an earlier decision.⁴⁷ The general location of the zones is shown in Fig. 27. The Zone-A scale was about 5 percent and the Zone-B scale about 15 percent higher than the basic scale. Notwithstanding the higher levels prescribed for Zone C in Michigan, and for New England, the Eastern class-rate scale is applicable over a large territory which includes areas of diverse traffic and operating characteristics.

In the Southern Class-Rate Investigation it was found that traffic densities were somewhat more favorable for the States bordering on Trunk-Line Territory, but the Commission found that it was not possible to draw anything but an arbitrary line between border territory and the more southern areas, and that such a line would not coincide with any distinct differences in transportation conditions.⁴⁸ The Commission also found that there were greater differences between individual railroads in the same area than between different areas. The Commission therefore prescribed a single scale of class rates for general application throughout Southern Territory, except that higher rates were permitted for that part of Florida south of Jacksonville and River Junction.⁴⁹

In Western Trunk-Line Territory there are four scales and levels of class rates. The division of the area into zones with different rate levels was found justified, partly by differences in operating and traffic conditions and partly by the necessity of building up the level of rates gradually to the level which has been prescribed in adjacent Southwestern Territory.⁵⁰ The Western Trunk-Line zones, together with the extension of Zone IV west of the original boundaries of the territory, are shown in Fig. 28.

In Southwestern Territory two levels of class rates were prescribed.⁵¹ In the eastern part of the territory the scale is the same as the Western Trunk-Line Zone-III scale. A higher scale was prescribed for the western part of the territory, but the carriers established the Zone-III basis in

⁴⁷ *Proposed Increases in New England*, 49 I.C.C. 421 (1918).

⁴⁸ 100 I.C.C. 513, 622-623.

⁴⁹ A slightly different scale of class rates was later prescribed by the Commission to apply between points in Virginia and points in North Carolina not covered by the Southern Class-Rate Investigation. *North Carolina Corporation Commission v. Akron, Canton & Youngstown Ry. Co.*, 213 I.C.C. 259 (1935).

⁵⁰ *Western Trunk-Line Class Rates*, 164 I.C.C. 1, 198-199 (1930).

⁵¹ *Consolidated Southwestern Cases*, 123 I.C.C. 203 (1927). Rates were revised in the 21st supplemental report, 205 I.C.C. 601 (1934)

this area in 1941, thus making a single scale applicable through Southwestern Territory.

Although there has been no comprehensive investigation of class rates throughout Mountain-Pacific Territory as a whole, the so-called Arizona scale applies extensively in this area, as a result of a long series of Commission decisions extending back to 1911.⁵²

Notwithstanding the practice of applying a single distance scale over wide areas, the Commission makes some recognition of differences

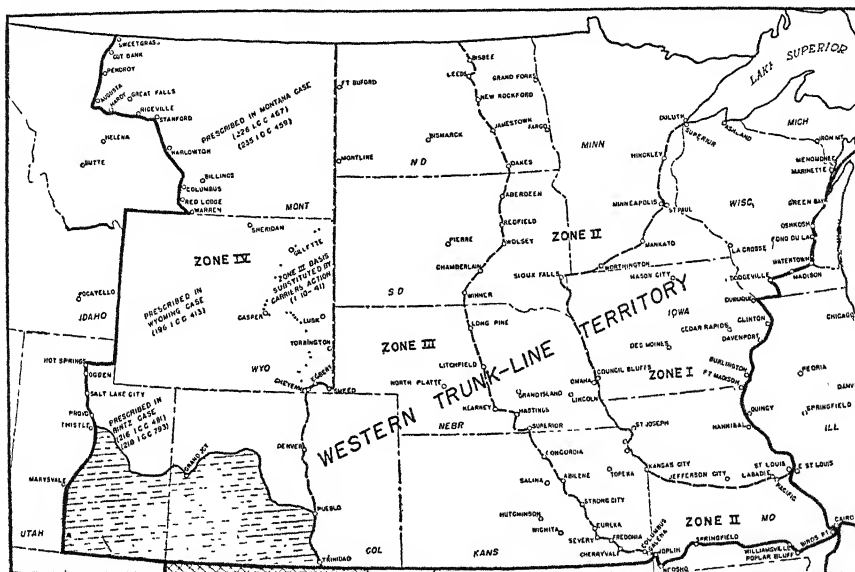


FIG. 28.—Zoning of Western Trunk-Line Territory.⁵³

in transportation conditions by frequently permitting the addition of "arbitrariness" for distances on short or weak lines.

Although the Commission has shown a tendency to prescribe a single scale of class rates for application over large areas, the differences between the class-rate levels in the major rate territories are great. A glance at the different class-rate scales shown in Fig. 26 on page 179 shows this to be the case. If the first-class rates in Eastern Territory are

⁵² Board of Investigation and Research, *Report on Interterritorial Freight Rates*, pp. 15-16.

⁵³ Adapted from map in Board of Investigation and Research, *Report on Interterritorial Freight Rates*, 78th Cong., 1st sess., House Doc. No. 303 (1943), facing p. 1. Rates in shaded area are based on W.T.L. rates but are higher.

taken as 100, the comparative levels in the various territories are as follows:⁵⁴

Eastern	100
Southern	139
Western Trunk-Line:	
Zone I	128
Zone II	146
Zone III	161
Zone IV	184
Southwestern	161
Mountain-Pacific	166

These differences in the class-rate levels will be wiped out, except for the higher level in Mountain-Pacific Territory, when and if the order of the Commission in the Class-Rate Investigation of 1939 becomes effective.⁵⁵

Distance scales not only are used in the construction of class rates but are also frequently used in the construction of commodity rates. In some instances individual railroads have their own scales applicable on a particular commodity. In other instances scales have been prescribed by the Commission. Some of these have had very limited application; others have applied over wide areas, sometimes co-extensive with a major rate territory, or even applying over two or more such areas. In some instances a commodity-rate scale originally set up to apply in a limited area, or between a limited number of points, comes to be used as a standard of reasonableness in cases involving other points and areas, and so gradually spreads over a larger area.

RATES BETWEEN ZONES OR AREAS HAVING DIFFERENT LEVELS

When two or more rate zones are established with a different level or scale of distance rates in each zone, some method has to be found for constructing rates from a point in one zone to a point in another. Various methods have been used for the construction of such rates.

An obvious method of constructing rates in such situations is to apply the scale of each zone for the distance within that zone, and to add the rates together. This is equivalent to making rates on a combination basis, the method necessarily used when no through rates are published. A serious weakness in this method of constructing rates between zones is that it includes the terminal charge twice, or more

⁵⁴ *Ibid.*, p. 19.

⁵⁵ 262 I.C.C. 447. The validity of the order of the Commission in this case is being tested in the courts.

than twice if more than two zones are involved. As long as distance rates are constructed on the tapering principle, the combination of two or more short-distance rates will be higher than is justified for the whole distance. Prior to the comprehensive class-rate revisions which began in 1925, rates from points in one major rate territory to points in another were usually constructed on the combination basis, and the method is still used in the construction of some commodity rates.⁵⁶

Another method of constructing interzone rates is to apply the scale of one zone for the whole distance. This might be either scale, but it is almost always the higher scale. In the latter case the carrier collects more than is justified, since there is no blending of the two rate levels. This method also creates unjustifiable differences in rates at border points. Rates to a point just beyond a zone boundary will often be much higher than to a near-by point just short of a zone boundary. This method of constructing rates was used by the Commission, however, in *Proposed Increases in New England*, in 1918.⁵⁷

A third method of constructing rates from one zone to another was used by the New England carriers prior to the decision of the Commission just mentioned. This was known as the constructive-mileage plan. Under this system the distance in the higher-rated zone was increased by 25 percent, and this constructive distance was then added to the distance in the lower-rated zone. The lower scale was then applied to the distance so computed. The Interstate Commerce Commission once called the constructive-distance plan "theoretically the soundest" system of constructing interzone rates.⁵⁸ The carriers, in the New England case, however, objected to it because it involved the computation of so many distances, particularly where several routes were available.

In the original Western Cement Rates case the Commission used still another method of constructing rates from one zone to another.⁵⁹ The rates were to be computed for the whole distance under both scales, and an average taken. This system has the merit of simplicity but is somewhat arbitrary in that it makes no allowance for varying proportions of the haul in each zone. It also proved to have peculiar results in practice.⁶⁰

⁵⁶ This method may be modified by making the rates a combination of "proportional" rates, which are lower than the local rates.

⁵⁷ 49 I.C.C. 421, 457 (1918).

⁵⁸ 100 I.C.C. 513, 625 (1925).

⁵⁹ 48 I.C.C. 201, 238-239 (1918).

⁶⁰ See 52 I.C.C. 225, 234 (1919).

A modification of the above method is to use an average of the rates computed under each scale weighted by the number of miles which the shipment moves in each zone or area. A system which accomplished the same result as this was prescribed by the Commission in *Cottonseed and Related Articles*.⁶¹ The Commission later modified its findings in this case because of carrier objections.⁶² Commissioner Tate, in a separate opinion, stated that the so-called "cotton-seed formula" prescribed in the earlier decision was "the nearest approach to the ideal" and suggested that it be universally adopted as the method of constructing rates between regions with different rate levels.⁶³

Special interzone scales can be constructed which represent an averaging of two or more scales, but this method cannot very well take into account the proportion of the haul that takes place in the different zones. One interzone haul of 500 miles might have 450 miles in the lower-rated zone and 50 miles in the higher-rated zone, while another haul of the same distance might have only 50 miles in the lower-rated zone and 450 in the higher-rated area. In the Western cement rate adjustment special interzone scales were set up for application between certain zones.⁶⁴

The most widely used method of constructing rates between points in different zones is to apply the lower scale for the whole distance and then to add "arbitrariness" or "differentials," that is, specific amounts varying with the length of the haul, in the higher-rated zone. This was the method used by the Interstate Commerce Commission in the Southern Class-Rate Investigation for the construction of rates to and from points in the Florida peninsula.⁶⁵ Thus on first-class traffic an arbitrary of 6 cents was added when the haul in Florida was 10 miles or less; 7 cents when 25 miles or over 10. It reached a maximum of 25 cents for hauls of over 500 miles in the higher-rated area.⁶⁶ This method is also used in constructing rates in Eastern Territory to and from points in New England, and to and from points in Zone C in Michigan. In Western Trunk-Line Territory, class rates between points in different zones are constructed in this manner. Thus if a shipment moved a distance of 450 miles, of which 100 miles was in Zone I, 300 miles in Zone II,

⁶¹ 188 I.C.C. 605, 635-636 (1932).

⁶² 203 I.C.C. 177 (1934).

⁶³ 203 I.C.C. 187.

⁶⁴ See Board of Investigation and Research, *op. cit.*, pp. 98-99.

⁶⁵ 100 I.C.C. 513, 625-626 (1925).

⁶⁶ 128 I.C.C. 567, 602 (1927).

and 50 miles in Zone III, the rate would be the Zone-I rate for 450 miles, plus the Zone-II differential for 350 miles (the distance in Zones II and III), plus the Zone-III differential for 50 miles (the distance in Zone III).⁶⁷ The term "laminated scale" is commonly used to describe rates built up in this manner.

COMPUTATION OF DISTANCES

Another problem arising in the application of distance scales is the method of computing mileages. This is not a simple problem when several different routes are available. After experimenting with various rules for determining distances, the Interstate Commerce Commission settled on the rule that distances should be computed over the "shortest possible route over which carload traffic can be interchanged without transfer of lading." Such routes, however, are not necessarily the routes over which shipments actually move. The carriers may use longer routes, but the rate between the two points must be determined by the rule. One objection to this rule is that the establishment of new track connections, the construction of new lines, or the abandonment of old ones, may shorten or lengthen a route and require the adjustment of a large number of rates. The Commission, however, finds the plan much more satisfactory than those used previously.⁶⁸

An earlier rule that distances should be computed by the "shortest workable route," or as it came to be stated, by the shortest "economical distance," involved an exercise of judgment on the part of the carriers and led to much controversy with shippers.⁶⁹

MODIFICATION OF DISTANCE SCALES

Many of the distance-rate structures are somewhat modified in their actual application. Rarely, in fact, is there a rigid adherence to the scales prescribed. Three types of departures may be noted. In many of the cases prescribing distance scales the Commission fixes specific maximum rates between certain "key points," usually the more important towns and cities, and these rates do not always conform exactly to the distance scales. The carriers are then required to build rates to other points on the basis of the scales prescribed. But in so doing, the key-point rates act as maxima at intermediate points to avoid violations of the

⁶⁷ Board of Investigation and Research, *op. cit.*, p. 14.

⁶⁸ The problem is discussed at length in 113 I.C.C. 200 (1926).

⁶⁹ See 109 I.C.C. 300, 310-313 (1926).

Long-and-Short-Haul Clause. The key-point rates, in other words, are blanketed back to intermediate points if lower than the rate reached by the application of the distance scale. This was the method followed in the Eastern Class-Rate Investigation.⁷⁰ Another type of departure from the distance scales occurs because the Commission permits the grouping of points of origin and destination as a device to simplify tariff publication. This permits considerable flexibility in the application of the scales. The third type of departure results from the fact that the scales prescribed are scales of maximum rates, and the carriers may quote lower rates to the extent that it can be done without causing undue preference and prejudice to particular localities.

ADVANTAGES OF DISTANCE RATES

Rates constructed in accordance with the distance principle have certain advantages over rates otherwise constructed. They are comparatively simple and more readily understood, whereas rates constructed primarily in accordance with conditions of demand seem a veritable chaos and arouse suspicions of favoritism that are not easily dispelled.

A second advantage of distance rates is that they conform to the cost-of-service principle, for costs of transportation, generally speaking, increase with distance.

Distance rates are also desirable because they preserve to each locality the advantage of its location. It is for this reason that regulatory authorities are inclined to resort to distance rates to remove preferences and discriminations. This has been called "the rate making of desperation"⁷¹ since it is resorted to when the situation involves so many conflicting interests that any other adjustment is bound to result in further complaints of preference or prejudice.

The use of distance scales also tends to stabilize the rate structure. If rates are to be adjusted according to commercial and competitive conditions, manufacturers and dealers can never know when the rate system will be disturbed because of changed conditions. Rates constructed on the distance principle have a more permanent basis.

An important social advantage of distance rates is that they discourage wasteful transportation. Rates graded according to distance give an advantage to a producer in the immediately surrounding area. This

⁷⁰ 164 I.C.C. 314, 414-415 (1930).

⁷¹ Vanderblue, H. B., and Burgess, K. F., *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), p. 156.

was pointed out in connection with the discussion of market areas.⁷² On the other hand, rates that are the same without regard to distance, or that are constructed upon the principle of keeping everybody in business, lead to the invasion of one's natural markets by outside producers and permit the local producer to invade the markets of his rivals. This leads to an enormous amount of cross-hauling and the carrying of goods unnecessarily long distances. Rates constructed in accordance with the distance principle tend to prevent this economic waste. The principle is well stated by Professor Ripley: "The transportation of goods great distances at low rates, while economically justifiable in opening up new channels of business, becomes wasteful the moment such carriage, instead of creating new business, merely brings about an exchange between widely separated markets, or an invasion of fields naturally tributary to other centres."⁷³

A further advantage of distance rates lies in the fact that they interfere less with the natural migration of industries to more favorable locations than do rates which are adjusted in accordance with conditions of demand. Rates should not be used to prevent the development of industries in new and advantageous locations, nor should they be used to continue old centers of production in existence when the reasons which led to the establishment of an industry at that place have ceased to be operative. In the long run, society is best served by a rate structure which permits industries to locate where natural conditions are most favorable.

DISADVANTAGES OF DISTANCE RATES

The grading of rates according to distance has certain disadvantages. Such rates, it has been noted, limit the ability of producers seeking to sell goods in distant markets. This is a good thing in many respects, but it sometimes reduces the amount of competition in the production and sale of goods by protecting a local producer from competition.

Distance rates, it was pointed out above, preserve to each community the advantages of its location. But if so, the converse of the proposition is also true. Distance rates fasten upon a community the disadvantages of its location. Such disadvantageously located communities are likely to clamor for "equality of opportunity" and to ask for equalization of rates with those of their more advantageously located competitors.

The third objection to distance rates lies in the fact that, to some

⁷² Pp. 56-58, *supra*.

⁷³ Ripley, *op. cit.*, p. 277.

extent, they disregard the conditions of demand. Distance rates are justified largely on a cost-of-service basis; but it is proper to adjust rates, within limits, according to conditions of demand, as has been pointed out in the preceding chapter. Value of service, as has been pointed out, bears no necessary relation to distance.⁷⁴

INCREASING USE OF DISTANCE RATES

The use of distance rates has increased in the United States in recent years. This is due, in part, to government regulation of rates. Between 1910 and 1920, for instance, the Interstate Commerce Commission prescribed distance scales in no less than 250 cases.⁷⁵ Many additional distance scales have been prescribed since then. It must be remembered, however, that these scales are applied with great flexibility, and exceptions to the scales are numerous. There are still many commodity rates, furthermore, which can hardly be called distance rates.

RAILROAD COMPETITION

One of the strongest forces tending to distort rates and to prevent adherence to strict distance scales is competition. It is desirable, therefore, to consider a number of varieties of competition and their general effect upon the rate structure.

COMPETITION OF ROUTES

Rival railway lines compete with each other for traffic between points which they serve in common. This type of competition is known as "competition of routes." The routes may be nearly parallel, so that the railroads compete at practically all points, or they may diverge to such an extent that the carriers serve entirely different communities except at their termini. Owing to the thick network of rail lines in the United States the number of possible routes between some points is amazing. Some of the routes may be extremely circuitous, but they may compete no less actively for traffic. Sometimes, indeed, railroads extending in opposite directions from a common point compete for the same traffic. Lines operating east from Chicago sometimes compete with western lines for transcontinental traffic, the former carrying the traffic to the eastern seaboard for shipment by water via the Panama Canal. Ripley gives a number of examples of competition by extremely circui-

⁷⁴ P. 152, *supra*.

⁷⁵ Daggett, *op. cit.*, p. 289.

tous routes. He found that some freight from Boston to Chicago, 1,004 miles, actually moved by a route 1,786 miles long.⁷⁶ Chicago and New Orleans, about equally distant from San Francisco, are 912 miles apart. But the Illinois Central Railroad may haul freight from Chicago to New Orleans which is destined for San Francisco. The Canadian Pacific used to compete for traffic from Tennessee points which was consigned to points in California.⁷⁷

Competition of routes affects rates in three ways. It tends to equalize the rates via the various routes regardless of considerable differences in distance. In the second place, if competition is not restrained in some way, it will lead to subnormal rates at the competitive points even over direct routes. The distinction between out-of-pocket and fixed expenses becomes important here. A competitive route that sees the possibility of diverting traffic from another route will be inclined to cut rates below the full cost of the service. The revenue derived from the diverted traffic, in so far as it yields something over out-of-pocket costs, appears to be so much clear profit. A third effect of this type of competition is sometimes to create "differential routes," that is, routes which charge less than the standard rates in order to overcome the natural disadvantages of the route. The differential rate creates the inducement to ship over a route that provides inferior service. From New England to points in Central Territory there are "differential" rail routes competing with the "standard" rail routes. On first-class traffic the differential routes, consisting in part of lines through Canada, have long maintained a rate 5 cents lower than is charged by the standard lines. The differential is less on the lower classes, becoming one cent on sixth-class traffic.⁷⁸

Competition of routes is not always competition between rival rail lines. The railroads often compete with water routes, highways, and pipe lines, for traffic between the same points.

CROSS-COUNTRY COMPETITION

Sometimes competition equalizes rates at points which are on different but more or less paralleling lines. This occurs when it is possible to haul goods by truck across country from one line of railroad to another. This has been called "cross-country competition."⁷⁹ The in-

⁷⁶ *Op. cit.*, p. 115.

⁷⁷ *Ibid.*, p. 269.

⁷⁸ 164 I.C.C. 314, 449 (1930).

⁷⁹ Vanderblue and Burgess, *op. cit.*, pp. 123-124. For an example, see *Grain & Grain Products from Southwest to California*, 190 I.C.C. 257, 258 (1932).

fluence of cross-country competition is particularly strong in level areas and does not operate in mountainous regions where cross-country transportation is difficult. It has been an important influence in the western ranch country, where cattle can be driven comparatively long distances. The development of automobiles and hard roads has increased the importance of cross-country competition generally.

MARKET COMPETITION

Another type of competition, and one which has been mentioned in previous chapters, is market competition. This is the competition between rival producing centers to sell goods in a common market.⁸⁰ Although this has been defined as competition between rival producing centers, it is at the same time competition between the railroads serving

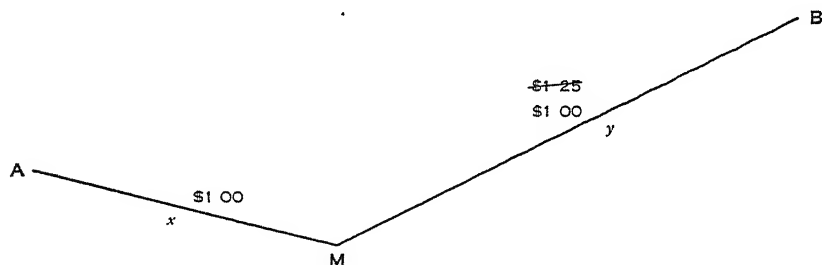


FIG. 29.—Market Competition.

the different producing areas, since each railroad is interested in developing as much traffic for its lines as possible. A simple case of market competition is shown by Fig. 29.

Market competition results in a tendency to lower the rates from more distant sources of supply so that the producers can compete with those more favorably located. It frequently leads to the establishment of group rates, shortly to be described.

There are two types of market competition: primary and secondary, or simple and complex.⁸¹ Primary market competition involves a single commodity shipped directly from producing areas to consuming areas. Potatoes from Maine compete with potatoes from Michigan; and oranges from California with oranges from Florida. Salt from Michigan and

⁸⁰ H.G. Brown in *Transportation Rates and Their Regulation* (New York, Macmillan, 1916) calls this type of competition, "competition of locations." Strictly speaking, Brown's terminology is preferable to the more common term, "market competition," but the latter term is so widely used that we defer to the common practice.

⁸¹ Ripley, *op. cit.*, p. 121.

from Kansas and sugar from Atlantic seaboard and from Pacific Coast refineries are other examples. Rates from the various sources of supply may not actually be equalized, but there is a tendency in that direction, and the long-haul rates will be depressed to the extent necessary to enable the more distant producers to compete.

Secondary market competition involves hauls on two or more commodities, a raw material and the finished product, or on the same commodity into and out of jobbing centers. Here, as has been previously shown, it is the sum of the rates that will tend to equalize.⁸²

Market competition usually underlies controversies involving local discrimination or undue preference and prejudice.

COMPETITION OF DIRECTIONS

Market competition was defined as competition of rival producing areas in a common market. There may also be competition of rival markets for the product of a common producing area. This kind of com-

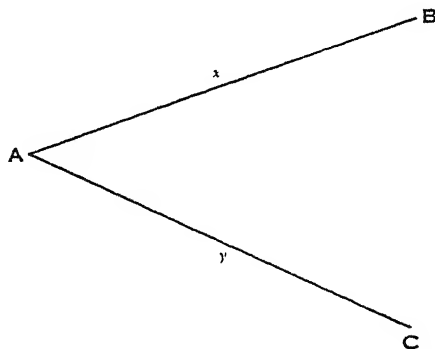


FIG. 30.—Competition of Directions.

petition is often considered as a kind of market competition, but it seems better to distinguish it as a separate type.⁸³

Competition of directions can be illustrated by Fig. 30. If *A* is a producing center, and *B* and *C* are rival markets for the product, the railroad charging the lowest rate may get the most traffic.

Competition of directions is involved in the movement of grain from country points to rival grain markets. Ripley refers to a reduction in

⁸² See discussion of in-and-out adjustments, pp. 54, 55, and 60, *supra*.

⁸³ We are here following H. G. Brown, *op. cit.*, where the peculiarities of this type of competition are discussed more fully, pp. 50-61.

rates on corn from Kansas to Texas which diverted corn from the rail lines serving Chicago and necessitated a lowering of the rates from Kansas to Chicago.⁸⁴ The competition of rival ports for export business may be considered a case of competition of directions if the rail part of the hauls alone is considered. In its larger aspects, however, the competition of ports is a case of competition of routes. Export traffic may move by a number of routes to foreign countries, and different routes lead through different ports.

EFFECT OF COMPETITION ON DISTANCE SCALES

Competition makes it very difficult for railroads to observe distance scales strictly. Very frequently competition creates "basing points" or "basing lines," the rates to and from which exert a dominating influence at other points. The situation can be illustrated by a diagram. Suppose a railroad starts out by charging according to a typical distance scale.

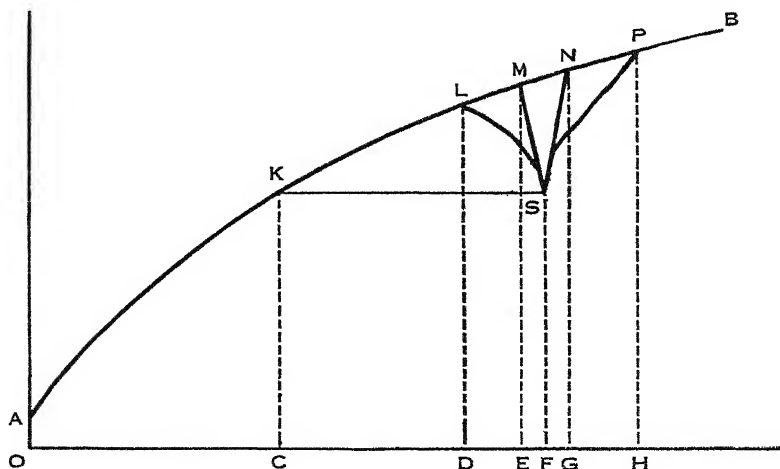


FIG. 31.—Effect of Competition on Distance Rates.

This is represented in Fig. 31 by the curve *AB*. Suppose, however, that at *F* the railroad encounters the competition of a shorter rail route or of a water line. Our railroad may be forced to meet the rate set by its rival at this point. As a result, the curve of the rates is broken by the notch *MSN*. But now an impossible situation results. The rate to *F* is much less than the rate to the nearer point *E*. To avoid the higher rate at *E*, shipments will move to *F* and will then be reconsigned back to *E*.

⁸⁴ *Op. cit.*, pp. 143-144.

Thus the maximum rate that it is practicable to charge at E is the rate OF plus the rate FE . The railroad must therefore revise its rates to intermediate points so that they will not exceed the rate to F plus the local rates back. In the same way, the rate to points beyond F cannot exceed the low rate to F plus the local rates beyond. As a result, the rates are now represented by the curve $ALSPB$. In other words, the rates to points in the vicinity of F are necessarily based on the rate to F . Point F has become a basing point.

This system of rate construction was characteristic of rates in the South prior to interference by regulatory authorities. A large number of points, mostly competitive points, had been granted favorable rates. These necessarily became basing points, and other rates were combinations to and from the nearest basing point.⁸⁵ If there is a series of basing points taking the same rates, the term "basing line" is commonly used. Transcontinental rates long afforded a good illustration of the basing-line system. Transcontinental rates from the East were the same to various Pacific Coast terminals and were made low to meet water competition. Then the rates to points inland from the Pacific Coast were the rates to the Pacific Coast terminals plus local rates back from the Coast. Thus the Pacific Coast became a basing line. Enforcement of the Long-and-Short-Haul Clause of the Interstate Commerce Act eventually forced an abandonment of this system of constructing transcontinental rates. The basing-point and the basing-line system had the peculiar result that, as one approached a basing point, the rates decreased as distance increased.

GROUP-RATE SYSTEMS

The characteristic feature of group-rate systems is the grouping of points of origin or destination, or both. All points in a group take the same rate. This means that differences in distance are ignored to some extent. Usually, however, more distant groups take higher rates than less distant groups.

Group-rate systems are numerous, but only a few illustrations need be given. On transcontinental traffic large rate groups are found. Fig. 32 shows the grouping of the eastern and central part of the country on traffic to and from the Pacific Coast. The large size of some of the groups will be noted from the map. Thus the rates from a Pacific Coast point are the same to any point in New England, New Jersey, Delaware, Mary-

⁸⁵ For a further description of this rate system, see Ripley, *op. cit.*, pp. 238-243, 380-392; also Jones, *op. cit.*, pp. 157-163.

land, and most of New York, Pennsylvania, Virginia, and West Virginia. On certain commodities eastbound the whole area east of the Missouri River, in some instances east of Denver, is included within a single destination group. On such traffic the rates from the Pacific Coast to all points in an area over 2,000 miles wide are the same. These rates represent an extreme development of the group-rate principle. Such rates are frequently called "blanket rates."

Fig. 33 shows destination groups on lumber from an origin group known as the North Pacific Coast Group. The numbers shown on the

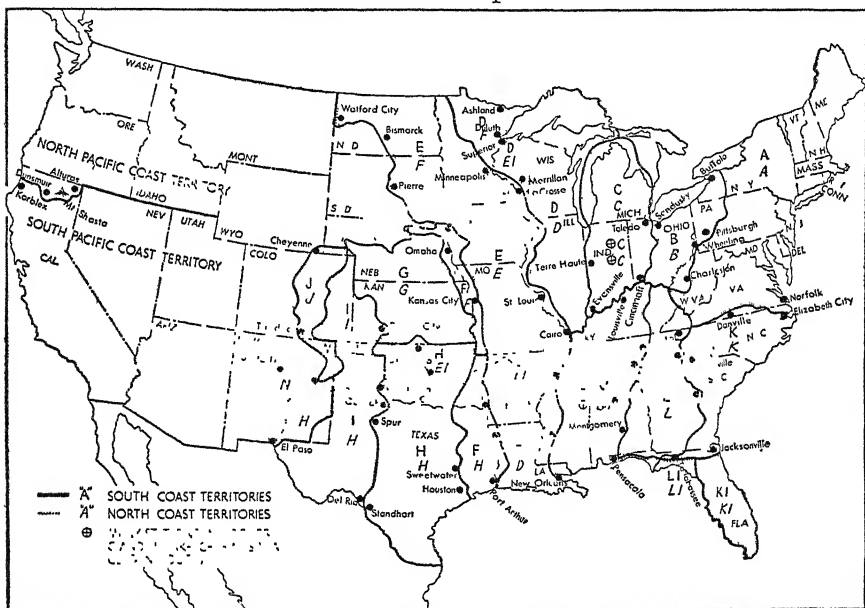


FIG. 32.—Transcontinental Freight-Rate Groups.

map are the rates in cents per hundred pounds to points within the group. In the areas marked G, however, the rates are not on a group basis but are graded according to distance.

Coal rates lend themselves to the group-rate system, since coal producing points are found clustered together in certain areas where coal is found. Fig. 34 shows the rate adjustment on coal from producing points in Ohio, Pennsylvania, West Virginia, Virginia, and eastern Kentucky to Toledo, Ohio. From the Ohio groups the rates are \$1.99 per ton.⁸⁶ From the so-called "Inner Crescent" groups the rates are made 50 cents per ton higher, and from the "Outer Crescent" groups (shown

⁸⁶ In 1942.

in black on the map) the rates are 75 cents per ton higher than from the Ohio groups.

There are several reasons for the prevalence of group-rate systems. To some extent they are the outgrowth of a desire to simplify tariffs. The grouping of points of origin and destination reduces the number of specific rates that have to be published.

In many cases group rates are the result of competitive forces. Market competition, in particular, is responsible for the establishment of

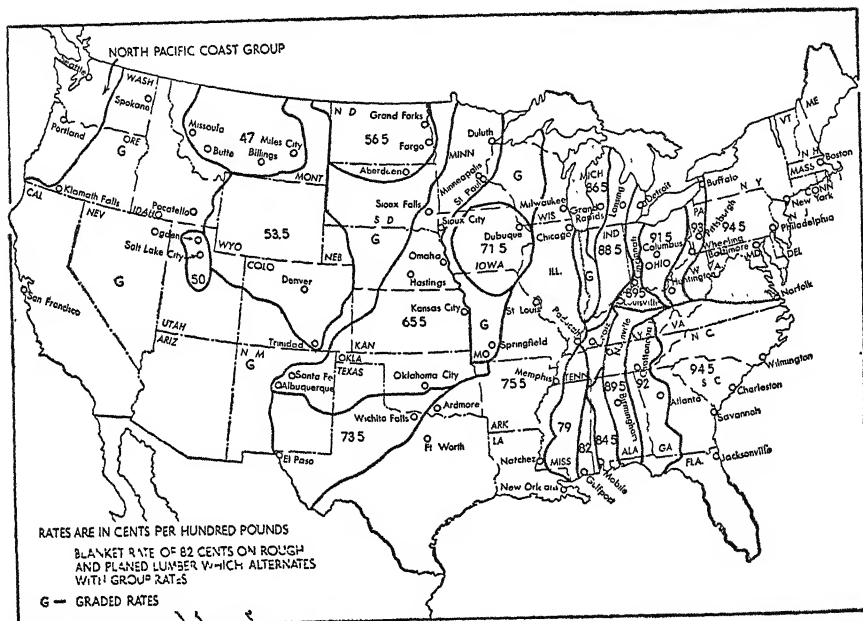


FIG. 33.—Lumber Rates from North Pacific Coast.⁸⁷

many group rates, since group rates put all points in a group upon an equality in the matter of freight rates.

The prohibition of higher charges for shorter than for longer hauls over the same line or route often leads to group rates. This is because a low through rate compelled by competition becomes the maximum that can be lawfully charged at intermediate points. This can be illustrated by the diagram in Fig. 31 on page 195, *supra*. If the law prohibits a higher charge for a shorter than for a longer haul, and the rate at *F* must be kept low, the railroad will "blanket back" the low rate, and

⁸⁷ From Board of Investigation and Research, *op. cit.*, facing p. 210.

a rate group is formed—including all points between *C* and *F* in the diagram. The railroad may, however, choose to give up the competitive traffic, in which case it will maintain a higher rate at the competitive point and thereby avoid a reduction of rates at intermediate points.

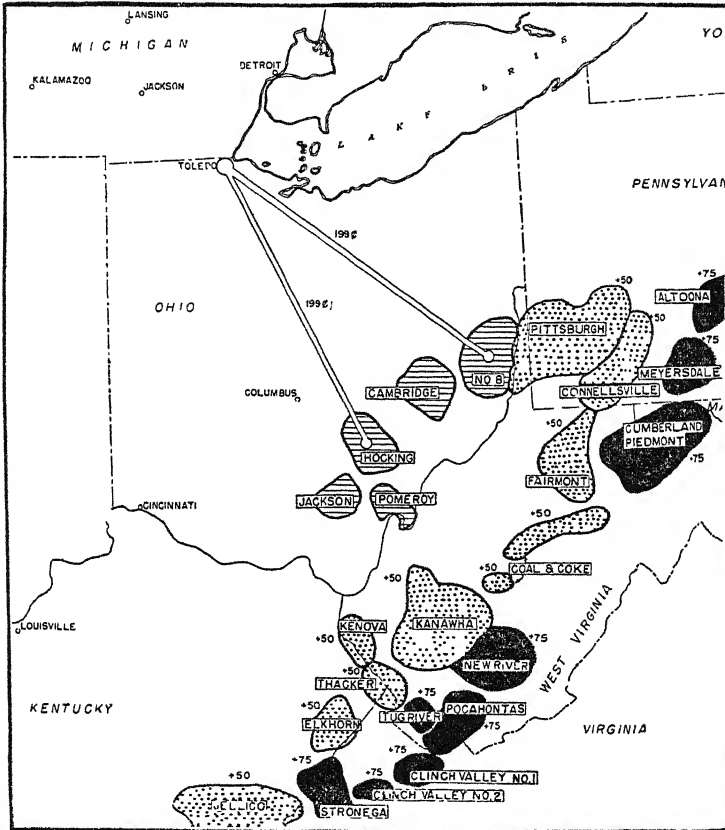


FIG. 34.—Map Showing Coal Rates from Ohio, Inner Crescent, and Outer Crescent Groups to Toledo, Ohio.

PASSENGER FARES

Passenger fares in the United States are constructed on a mileage basis. At time of writing, the basic passenger fares are 2.2 cents per mile in coaches and 3.3 cents in Pullman cars.⁸⁸

Since passenger fares are on the basis of a uniform rate per mile, there is no recognition of the tapering principle which characterizes

⁸⁸ *Increased Railway Rates, Fares, & Charges, 1942*, 255 I.C.C. 357, 386 (1943).

freight-rate structures. In other words, passenger fares are usually the same per mile for the very long as for the very short distances. An exception to the practice of making passenger fares strictly proportional to distance is found in Eastern Territory, where round-trip fares were established in 1939 which were at lower rates per mile for the longer distances. The basis of the fares declined from 2.25 cents per mile for the first 100 miles to about 2 cents at 450 miles and to 1.7 cents per mile for distances beyond 900 miles.⁸⁹ At that time the basic fare in the East was 2.5 cents per mile.

American practice has not gone so far as European practice in setting up several classes of passenger service at different fares. Prior to 1918, however, a second-class service at reduced fares was offered by the railroads in the West. The present-day Pullman service may be considered as a special high-class or de luxe service for which extra fares are charged in addition to the price paid for the Pullman space occupied by the passenger. A special "commutation" service at reduced fares is also provided by the railroads to accommodate the daily "commuter" travel into and out of the large cities. In addition to these special classes of service the railroads generally offer reduced round-trip fares, and still lower fares for vacation trips, holiday travel, or for travel to and from conventions or other large gatherings.

SELECTED REFERENCES

For material on freight classification and rate making see Eliot Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), chs. VIII and IX; S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), chs. XX and XXI; H. B. Vanderblue & Kenneth F. Burgess, *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), chs. IX, X, XI, and XII; E. R. Johnson, G. G. Huebner and G. Lloyd Wilson, *Transportation: Economic Principles and Practices* (New York, Appleton-Century, 1940), ch. 11; Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's 1941), chs. XVII, XVIII, and XIX; Kent T. Healy, *The Economics of Transportation in America* (New York, Ronald Press, 1940), chs. 12 and 13.

Class-rate structures applying in each of the major rate territories and interterritorially are described in Board of Investigation and Research, *Report on Interterritorial Freight Rates*, 78th Cong., 1st sess., House Doc. No. 303 (1943), chs. II and VI. For descriptions of some commodity-rate structures see *Ibid.*, chs. IV and VII.

The history of freight classification in the United States is summarized in the report of the Interstate Commerce Commission in *Suspension of Western Classification No. 51*, 25 I.C.C. 442 (1912). Uniform classification is discussed

⁸⁹ *Eastern Passenger Fares in Coaches*, 237 I.C.C. 271, 272 (1940).

in W. Z. Ripley, *Railroads: Rates and Regulation* (New York, Longmans, 1912), pp. 337-353; also in S. O. Dunn, "Uniform Classification," 47 *Railway Age Gazette* 413, 462, 497, 552 (1909); and in Board of Investigation and Research, *op. cit.*, pp. 323-325. There is much detailed information about freight classifications and the class-rate structures in *Class Rate Investigation, 1939*, 262 I.C.C. 447 (1945).

For a discussion of distance-rate systems and the Interstate Commerce Commission see Stuart Daggett, "Mileage Rates and the Interstate Commerce Commission," 46 *Quarterly Journal of Economics* 281, 295-299 (1932). A description of mileage scales may be found in Interstate Commerce Commission, Bureau of Statistics, Statement No. 4031, *Progression in Freight Rate Mileage Scales* (mimeographed, 1940), and Statement No. 4351, *A Description of the Principal Class Rate Scales Prescribed by the Interstate Commerce Commission, etc.* (mimeographed, 1943).

CHAPTER IX

BEGINNING OF RAILROAD REGULATION

THE year 1870 marks a very distinct change in the attitude of the public toward the railroads. In an earlier chapter we noted the liberality, not to say lavishness, with which financial assistance and other forms of aid were granted to railroad companies. Before railroads were completed, the interests of the railroads and the public were one. The public wanted railroads; the companies wanted to build them. But once the roads were constructed a conflict of interest appeared. The public wanted the lowest possible rates; the railroads wanted the most remunerative rates. This conflict of interest was the fundamental reason for the change in public attitude toward railroads. The change followed closely the completion of railroad building and would have occurred even in the absence of unjustifiable railroad practices. When the anti-railroad feeling was at its height in the seventies, communities that had insufficient railroad facilities opposed regulatory legislation and continued the policy of subsidy, while neighboring communities were attacking the railroads as predatory organizations engaged in robbing the people.

CHARTER REGULATION

There had been some attempt to regulate railroads prior to the seventies. Early railway charters, which were grants of authority under which the railroad corporations were organized, commonly contained provisions designed to protect the public interest. Sometimes the charters contained schedules of maximum charges. Other charters contained provisions reserving to the State the right to reduce rates when earnings exceeded a certain amount, say 10 percent on the investment. A few charters contained restrictions to prevent discrimination, but usually this problem was not foreseen by the legislatures.

WEAKNESS OF CHARTER REGULATION

Charter regulations accomplished little to prevent railway abuses. Maximum rates prescribed by charters were generally higher than the railroads found it expedient to charge, so they did not act as a check on excessive rates. The prescription of maximum rates, furthermore, did not touch the problem of discrimination at all, since most unjust dis-

criminations resulted from low rates to favored shippers and not from excessive rates to those discriminated against. Attempts to limit earnings often resulted in misrepresentation of accounts in an effort to conceal earnings, and also in stock-watering. Regulation through charter provisions was unsatisfactory for other reasons. When charters were granted by special acts of the legislatures their provisions differed widely. As charters were granted by all the States, any attempt to secure uniformity in railway charters seemed hopeless. Another difficulty arose from the fact that a charter is a contract and cannot be changed without the consent of both parties unless the power to alter it is specifically reserved by the State.¹

EARLY COMMISSIONS

In some States railroad commissions were created very early. In the latter part of the thirties and in the forties, commissions were set up in a number of the New England States. The early commissions exerted very little control, and they had no power over rates. The commissions appraised the value of property taken by the railroads under the power of eminent domain. They had charge of the enforcement of laws designed to prevent railroad accidents. They were authorized to investigate the affairs of railroad corporations in order to determine whether charters were being violated, and they had power to require accounting and statistical information from railroad companies.

THE GRANGER MOVEMENT

Positive control over railroad rates was a product of the Granger movement of the early seventies. During this period a number of western States, particularly Illinois, Iowa, Wisconsin, and Minnesota, enacted laws subjecting railroads to a system of regulation.

The Granger movement was an agrarian revolt of which an anti-railroad sentiment was but one manifestation. The movement derived its name from the "Grange," an organization of farmers which had much to do with giving force to the movement. The Grange did not officially sponsor railroad legislation and attempted to discourage the discussion of the problem in its meetings. But the railroad legislation which resulted has come to be known as the Granger legislation.

Fundamentally, the Granger movement was brought about by a decline in the price of agricultural products which caused hardship and

¹ *Dartmouth College Case*, 4 Wheaton 518 (1819).

distress among the agricultural population. The agricultural depression, in turn, had many causes. Among these were the inflation of the currency during the Civil War, and the rapid settlement of the West, aided in large measure by the land policy of the Government and by rapid railroad construction. Improved methods of agriculture and a decline in the foreign demand for grain were contributing factors. The farmers felt that in some way the railroads were responsible for these difficulties, but even when they knew this was not true it was natural to turn to the railroads for lower rates as a means of relief.

GRIEVANCES AGAINST THE RAILROADS

The complaints of the farmers against railroad practices were numerous. For one thing, they believed that freight rates were too high. The decline in the price of agricultural products had made the burden of existing rates harder to bear. It is impossible, at this time, to pass judgment on this claim, but the farmers were convinced that rates could be reduced. "When the Iowa farmer was burning corn for fuel," says one writer, "because at fifteen cents a bushel it was cheaper than coal, while at the same time it was selling for a dollar in the East, he felt that there was something wrong and quite naturally accused the railroads of extortion."²

The farmers were also angered by the gross discriminations practiced by the railroads, particularly the discrimination against noncompeting points. At competitive points rates were reduced to very low levels while higher rates were maintained at other places. Indeed, the farmers believed that the rates were increased at noncompetitive points to offset the reductions at competitive points. Not versed in the distinction between fixed and variable railroad expenses, they reasoned that if the rates at competitive points were profitable then all traffic could be carried at equally low rates. This reasoning was not sound, but it must be admitted that much of the discrimination was unjustifiable and did work a hardship upon the noncompetitive points.

Personal discrimination also came in for its share of criticism. The railroad companies sometimes gave a practical monopoly to certain individuals or corporations in supplying wood or coal to particular towns and cities. The monopoly was enforced through preferential rates to the favored dealers and higher rates to the independent dealers.

² Buck, S. J., *The Granger Movement* (Cambridge, Harvard University Press, 1913), p. 14.

In the same way the buying of grain was monopolized by preferential rates to favored shippers. These monopolies could not have long endured if all shippers had been treated equally by the common carriers.

OTHER CAUSES OF ILL-FEELING

A proper understanding of the Granger sentiment is not to be obtained from a mere recital of the principal charges made against the railroads. Public resentment at railroad practices was not wholly rational. There was a strong emotional element in it. It must be remembered that the farmers had been generous to the railroad companies and had lavished subsidies upon them. In many instances the farmers had personally subscribed to the stock of railroad companies and had often mortgaged their farms to do so. They had been led to expect generous dividends on railroad stock, and better prices for farm products. The railroad stock often turned out to be worthless, and the higher prices sometimes failed to materialize. The farmers, as taxpayers, also had to pay off the bonds voted to provide subsidies for railroads which showed their ingratitude by injurious discriminations.

The people felt that they had been tricked by unscrupulous promoters, as was the fact in many cases, and they also felt that they deserved better treatment from the companies which they had so generously aided. In addition to all this, the attitude of the companies toward the public was most insolent. Travelers and shippers were treated discourteously. Shippers hesitated to demand their legal rights for fear of greater injuries in retaliation. The control of the railroads by eastern capitalists aggravated the situation, for the farmers felt that they were the victims of "absentee ownership." The railroads were pictured as a giant octopus sucking the lifeblood of the people, and railway managers were likened to the robber barons of the Middle Ages. Hadley, referring to the temper of the western people at this time, said they were "dangerously near the point where revolutions begin."³

THE GRANGER LAWS

With feeling running high against the railroads the legislatures of the western States were in no mood to consider carefully and impartially the type of control which it was best to impose upon the railroad companies. It is not strange, therefore, that much of the railroad legislation was unwise and extreme, and that much of it had to be modified

³ *Railroad Transportation* (New York, Putnam's, 1885), p. 134.

subsequently. The remarkable thing was that these laws, modified in detail, were sound enough to become the pattern for later legislation, both State and Federal.

The railroad laws enacted between 1871 and 1874 by Illinois, Iowa, Wisconsin, and Minnesota are interesting because of the similarities and contrasts to present regulatory laws. For this reason, and for the lessons which they teach, it may be well to summarize their characteristic features.

PROVISIONS OF THE GRANGER LAWS

Some of the laws prescribed schedules of maximum charges. This was true of the Iowa Act of 1874, which prescribed rates for all distances up to 376 miles on various classes of freight and on specific commodities. The Wisconsin law of 1873, known as the Potter law, likewise prescribed maximum scales of rates.

There are many objections to the fixing of maximum rates by statute. The legislature does not have the information necessary to determine what a reasonable scale of rates should be. The complexities of rate making are so great, furthermore, that it is practically impossible for a legislative body, changing in personnel, inexperienced with railroad affairs, and concerned with many other things, to acquaint itself with the details of the problem of fixing reasonable rates on thousands of commodities. Rates prescribed by legislative bodies tend also to become rigid and inflexible. Changed conditions require changed rates, but a legislature is not in a position to make the changes with reasonable dispatch. Still another objection to statutory rates is the injustice resulting from any attempt at uniformity. Operating and traffic conditions vary so greatly that uniformity in the rate level may work unfairly. An attempt to meet this objection was made in the Granger acts by classifying railroads and prescribing different scales of rates for each class. But this solution is not satisfactory. Classification is difficult, and a single railroad may have branches and portions of its lines on which higher or lower rates are justified than on other portions. The attempt to fix maximum rates by statute has been abandoned as a feature of our regulatory system.

Some of the Granger laws imposed the duty of prescribing a maximum schedule of rates upon the railroad commissions which were set up to administer the laws. This was done, for instance, by the Illinois law of 1873 and the Minnesota law of 1874. The fixing of maximum rates by commissions is an improvement over the practice of direct

legislative rate fixing. A commission can act in a semi-judicial capacity and is better able to determine what would be reasonable charges. Unlike a legislative body, it may be expected to acquire some knowledge of the details and complexities of rate making. It may, in fact, become an expert rate-making body. Also, there is greater flexibility in commission-made rates, for a commission can more easily change rates when occasion demands it. Modern regulatory practice, however, favors a system of regulation which prescribes maximum rates only when rates initiated by the railroads have been found unreasonable or otherwise unlawful. This leaves the initiative in rate making with the carriers and brings under more careful scrutiny the rates against which complaints have been made, while raising no issues over rates which are not the subject of complaint.

A third feature of the Granger legislation is found in the "pro-rata" clauses which they contained. The pro-rata clauses provided that rates should not be higher for shorter than for longer hauls. They were the forerunners of modern "long-and-short-haul" clauses, but more drastic. The inclusiveness of the prohibitions contained in early pro-rata clauses is illustrated by a provision in the Illinois law of 1871: "No railroad corporation . . . shall charge or collect for the transportation of goods, merchandise or property on its said road, for any distance, the same nor any larger or greater amount as toll or compensation than is at the same time charged or collected for the transportation of similar quantities of the same class of goods, merchandise or property over a greater distance upon the same road."⁴ A provision like this does not permit a railroad to maintain a higher scale of rates on branch lines than on main lines, nor does it permit group rates. It will be shown in a subsequent chapter⁵ that under some conditions it is not even objectionable to charge more for a shorter than for a longer haul over the same line and in the same direction, but early pro-rata clauses made no allowance for such possibilities. Not all the Granger laws, however, were as drastic as the early Illinois law in this respect.

Another feature of the Granger legislation was the attempt to preserve competition by forbidding the combination of competing lines. The policy of attempting to enforce competition between railroads is now considered to have been a mistaken policy, although railroad monopoly could hardly have been accepted until effective means of

⁴ Quoted in Buck, *op. cit.*, p. 133.

⁵ Chapter XXII.

control had been established. Attempts to preserve competition between railroads have not entirely disappeared from our legislation, but the policy has been greatly modified.

Lastly, the Granger laws contained provisions which prohibited railroads from granting free passes to public officials. The railroads had courted the favor of legislators, judges, and other public officials by granting free passes. At first the practice was not considered improper by the public, but it soon proved to be a form of petty bribery which prevented public officials from acting in the interest of the people when the public interest conflicted with that of the railroad companies. It was well that the Granger acts prohibited the practice.

REPEAL OF THE GRANGER LAWS

The Granger laws did not remain upon the statute books for very long except in Illinois. Minnesota substituted a weak and innocuous system of regulation in 1875. Iowa substituted a commission of the advisory type in 1878. The advisory commissions had no power over rates. They were common in the eastern States, and some of them, particularly the Massachusetts commission, were very successful. In Wisconsin, the Potter law was repealed in 1876, and an advisory type of commission set up.

The repeal of the Granger laws was brought about by a number of causes. The panic of 1873 was perhaps the most important factor in the situation. It brought a halt to railroad building and lent color to the claim that the Granger legislation was frightening capital from railroad enterprises. A second cause for the change in public attitude was the vigorous campaign waged by the railroads to convince the people that the Granger legislation was a mistake and was harmful to the business and agricultural interests of the States. In this campaign of "education" the aid of eastern newspapers and periodicals was obtained. A large element in the population became convinced that the Granger legislation was injurious, and that it threatened the very existence of the railroads. The third cause of the repeal of the Granger laws was the unsoundness of some of their provisions. We have shown that some of these were extreme and would not work well in practice. The laws were crude, as there had been little experience upon which to rely in enacting regulatory legislation. It must be remembered also that the laws were passed in the heat of bitter warfare between the agrarians and the railroads, and hence in an atmosphere far from con-

ductive to a careful working out of the problem. The laws should have been modified, and the extreme and objectionable features removed. But the pendulum was swinging the other way, and the legislatures went farther in the direction of relaxing control than was necessary or desirable. A few years later, in the eighties and nineties, a movement toward more effective control set in, and not only the Granger States but practically all States found it necessary to set up commissions with power to control rates. And in 1887 the Interstate Commerce Commission was created, although its power to fix rates was not established until 1906.

THE GRANGER CASES

The Granger legislation resulted in the Granger cases, decisions of the United States Supreme Court, in 1877, upholding the validity of railroad regulation. These decisions provide the legal basis for our present regulatory system. There were six cases in the series, the most important of which, from the point of view of the discussion of principles, was *Munn v. Illinois*.⁶ This case did not involve railroads at all, but referred to the regulation of warehouses used for the storage of grain. The other five cases concerned the regulation of railroads.

The main argument of the carriers was that regulation was repugnant to the Fourteenth Amendment of the Constitution of the United States, which provides that no State shall "deprive any person of . . . property, without due process of law." A good argument on this score could be made. To limit the charges which one may make for the use of his property will certainly, if the charge does not cover cost, deprive the property of any value. Even if the charge covers the cost of the service rendered, any reduction of charges that reduces earnings will diminish the value of the income-bearing property, for value is dependent upon earnings. The Court, in effect, conceded the validity of this argument so far as ordinary businesses were concerned, but held that it did not apply to a special category of businesses described as "affected with a public interest." The Court pointed out that historically certain classes of businesses had been commonly regulated both in England and in this country. ". . . it has been customary in England from time immemorial, and in this country from its first colonization, to regulate ferries, common carriers, hackmen, bakers, millers, wharfingers, innkeepers, etc., and in so doing to fix a maximum of charge to be made for services

⁶ 94 U.S. 113.

rendered, accommodations furnished, and articles sold.”⁷ The appeal to the practice of England, or of the American colonies, or of the several States of the United States might not appear to be wholly convincing, since neither England, nor the American colonies, nor the States in the early years of the Republic were bothered by a “Fourteenth Amendment.” The Fourteenth Amendment was one of the Civil War amendments adopted in 1868. But the Court circumvented this difficulty by saying: “While this provision of the amendment is new in the Constitution of the United States, as a limitation upon the powers of the States, it is old as a principle of civilized government. It is found in Magna Charta, and in substance if not in form, in nearly or quite all the constitutions that have been from time to time adopted by the several States of the Union.”⁸ In other words, the principle of the Fourteenth Amendment is old, and it has not in the past prevented regulation of certain types of businesses. If such regulation has not been considered repugnant to the ancient principle, it is not repugnant to the Fourteenth Amendment.

For the distinction between businesses affected with a public interest and ordinary businesses the Court went back to a discussion by Lord Hale in his treatise *De Portibus Maris*, written more than two hundred years before, wherein it was pointed out that when private property is “affected with a public interest, it ceases to be *juris privati* only,” and its owner must submit to be controlled by the public for the common good. This distinction, which was adopted by the Court, became of great importance in our economic life. Regulation of such businesses as were considered “affected with a public interest” was constitutional; regulation of other businesses was unconstitutional.

The Court, in the Granger cases, made no attempt to define precisely what causes one business to be affected with the public interest while another is not so affected. The language is extremely vague. Property becomes “clothed with a public interest,” said the Court, “when used in a manner to make it of public consequence, and affect the community at large.”

Mr. Justice Field, in a dissenting opinion, objected to the vague distinction between property affected with a public interest and other property. It would seem, he argued, “that the court holds that property loses something of its private character when employed in such a way

⁷ 94 U.S. 113, 125.

⁸ *Ibid.*, pp. 123-124.

as to be generally useful.”⁹ He went on to say: “The public is interested in the manufacture of cotton, woolen, and silken fabrics, in the construction of machinery, in the printing and publication of books and periodicals, and in the making of utensils of every variety, useful and ornamental; indeed, there is hardly an enterprise or business engaging the attention and labor of any considerable portion of the community, in which the public has not an interest in the sense in which that term is used by the court in its opinion.”¹⁰

Because of the vagueness of the distinction between businesses affected with a public interest and those not so affected, the question of the constitutionality of regulatory legislation has frequently come before the courts. There is a line of decisions in which the Supreme Court of the United States has been called upon to determine whether certain businesses were affected with a public interest or not.¹¹ The courts were loath to extend greatly the list of businesses which might be regulated.¹² No definite rule for distinguishing such businesses was developed, but in many cases the presence or absence of a monopoly element, or an element of consumer disadvantage, was an important consideration. In *Munn v. Illinois* the monopoly character of the warehouse business was pointed out as important in classifying it as a business affected with a public interest. In so far as railroads are concerned, the Court did not mention the monopoly element, but merely pointed out that common carriers had been regulated in England as early as 1691, and railroads, being common carriers, might also be regulated. From an economic point of view, however, it was the monopoly character of railways, or the failure of competition to act as a regulator of rates, coupled with the public importance of the industry, that justified public control.

It should be noted in passing that the division of businesses into two classes—those affected with a public interest, which might constitutionally be regulated, and those not so affected, which might not be regulated—was abandoned by the Supreme Court of the United States in 1934. In *Nebbia v. New York* the Supreme Court upheld the New York

⁹ 94 U.S. 113, 139.

¹⁰ *Ibid.*, p. 141.

¹¹ For cases in which regulation was upheld see *Budd v. New York*, 143 U.S. 517 (1892); *Brass v. North Dakota*, 153 U.S. 391 (1894); *German Alliance Insurance Co. v. Lewis*, 233 U.S. 389 (1914); *Block v. Hirsh*, 256 U.S. 135 (1921).

¹² In the following cases regulation was found invalid: *Wolff Packing Co. v. Court of Industrial Relations*, 262 U.S. 522 (1923); *Tyson v. Banton*, 273 U.S. 418 (1927); *Ribnik v. McBride*, 277 U.S. 350 (1928); *Williams v. Standard Oil Co.*, 278 U.S. 235 (1929); *New State Ice Co. v. Liebmann*, 285 U.S. 262 (1932).

Milk Control Law of 1933, which provided for the fixing of maximum and minimum retail prices for milk, although the Court said that the industry was not a "public utility."¹³ The Court also said: "It is clear that there is no closed class or category of businesses affected with a public interest."¹⁴ The decision broke down the traditional classification of businesses into those which could be regulated and those which could not. If there remained any lingering doubt about the effect of this decision it was dispelled by a later decision in which the Court specifically said that the former test of the validity of price-fixing legislation—namely, whether or not the industry was "affected with a public interest," had been "discarded" in the *Nebbia* case.¹⁵

In the *Granger* cases two justices of the Supreme Court vigorously dissented from the view that railroads could be subjected to regulation. "The principle upon which the opinion of the majority proceeds is, in my judgment," wrote Justice Field, "subversive of the rights of private property, heretofore believed to be protected by constitutional guaranties against legislative interference."¹⁶ "The legislation in question," he added, "is nothing less than a bold assertion of absolute power by the State to control at its discretion the property and business of the citizen and fix the compensation he shall receive."¹⁷ And elsewhere he said: "I deny the power of any legislature under our government to fix the price which one shall receive for his property of any kind."¹⁸

There was some surprise at the position taken by the Supreme Court in the *Granger* cases, since it was commonly believed that the Court would invalidate the legislation. If the Court had held that regulation was unconstitutional, the States would have been without power to

¹³ 291 U.S. 502 (1934). For comments on this decision see Goldsmith, Irving B., and Winks, Gordon W., "Price Fixing: From *Nebbia* to Guffey," 31 *Illinois Law Rev.* 179 (1936); Hale, R. L., "The Constitution and the Price System: Some Reflections on *Nebbia* v. New York," 34 *Columbia Law Rev.* 401 (1934); Rosenbaum, Irwin S., "Ruling on Milk Price Control," 14 *Public Utilities Fortnightly* 795 (1934); Harbeson, R. W., "The Public Interest Concept in Law and in Economics," 37 *Michigan Law Rev.* 181 (1938).

¹⁴ 291 U.S. 502, 536 (1934).

¹⁵ *Olsen v. Nebraska*, 313 U.S. 236, 245 (1941). It should not be inferred that the courts will refuse to set aside regulatory laws. In the *Nebbia* case the Supreme Court said: "... the guaranty of due process, as has often been held, demands only that the law shall not be unreasonable, arbitrary or capricious, and that the means selected shall have a real and substantial relation to the object sought to be attained" (291 U.S. 502, 525). Thus there is opportunity for the courts to invalidate regulatory laws that they consider "unreasonable," "arbitrary," "capricious," or not having a "real and substantial relation to the object sought to be attained."

¹⁶ 94 U.S. 113, 136.

¹⁷ *Ibid.*, p. 148.

¹⁸ *Ibid.*, p. 152.

deal with the railroad abuses which had arisen, as long as the railroads were privately owned. The decision in the Granger cases was a distinct victory for the people. On some points the position taken by the Court in the Granger cases was extreme and was later modified,¹⁰ but from the right of the public to regulate there has been no retreat.

SELECTED REFERENCES

Charter regulation and subsequent general laws relating to railways are described in B. H. Meyer, *Railway Legislation in the United States* (New York, Macmillan, 1903).

The Granger movement and the railroad legislation which accompanied it is described in Eliot Jones, *Principles of Railroad Transportation* (New York, Macmillan, 1924), ch. X, and in Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XXIX. The most thorough and scholarly study of the movement is S. J. Buck, *The Granger Movement* (Cambridge, Harvard University Press, 1913). A more popular account by the same author is *The Agrarian Crusade* (New Haven, Yale University Press, 1920), particularly chapter IV. An interesting popular account of the Granger legislation, written shortly after the movement had subsided, is C. F. Adams, "The Granger Movement," 120 *North American Review* 394 (1875). For a study of the movement in particular States see A. E. Paine, "The Granger Movement in Illinois," 1 *University of Illinois Studies* 335 (1904); J. H. Gordon, "Illinois Railway Legislation and Commission Control Since 1870," 1 *University of Illinois Studies* 213 (1904); R. S. Saby, "Railroad Legislation in Minnesota, 1849-1873," 15 *Collections of the Minnesota Historical Society* 1 (1915). The excellent article by Charles R. Dietrick, "The Effects of the Granger Acts," 11 *Journal of Political Economy* 237 (1903) should be read before any final judgment is made concerning the effects of the legislation. The Granger decisions, and the vigorous dissenting opinions are reported in 94 U.S. 113, pp. 113-187.

¹⁰ See pp. 215-216.

CHAPTER X

FEDERAL LEGISLATION, 1887-1920

THE Granger movement, which brought about State regulation of railroads, was not without its repercussions in the halls of Congress. Although there was considerable agitation for Federal legislation in the seventies and early eighties, Congress did not act for several years.¹

THE WINDOM REPORT

In 1872 the Senate appointed a special committee to investigate the possibility of securing cheaper transportation between the interior and the seaboard. This committee, known as the Windom committee, made its report to the Senate in 1874.² The defects and abuses of the existing transportation system, according to the committee, were "insufficient facilities, unfair discriminations, and extortionate charges."³ Evidently more importance was attached to the first and third of these charges, for the report discussed methods of improving facilities and reducing rates, but had little to suggest for the purpose of removing discriminations.

The report reflected the popular view that competition was the best regulator of rates, but the committee was aware of the fact that competition "invariably ends in combination," and so is not sufficient protection for the public. The committee concluded that the only means of securing and maintaining reliable and effective competition was through National or State ownership of one or more railroads, "which being unable to enter into combinations, will serve as regulators of other lines;"⁴ The committee recommended the construction of one or more such railways to the seaboard, and the further development of inland waterways.

THE CULLOM REPORT

No action was taken upon the proposals of the Windom committee although the question of regulation was constantly arising before Con-

¹ For a description of early agitation in Congress for legislation, see Haney, L. H., *A Congressional History of Railways in the United States, 1850-1887*, Bulletin of the University of Wisconsin No. 342 (Madison, 1910), chs. XIX, XXI, and XXII.

² *Transportation Routes to the Seaboard*, 43d Cong., 1st sess., Senate Rep. 307, Pt. 1.

³ *Ibid.*, p. 71.

⁴ *Ibid.*, p. 242.

gress. The House of Representatives passed a bill in 1874 which provided for regulation, and another such bill in 1878. In 1884 the House passed the Reagan bill to regulate interstate commerce, and in the following year the Senate passed the Cullom bill as a substitute. This resulted in a deadlock between the House and the Senate, for the bills were quite different. At this juncture a special committee was appointed to make a thorough investigation of the railroad question. This committee, known as the Cullom committee, made its report in 1886.⁵

The Cullom report differed from the Windom report of twelve years before in that more emphasis was placed upon the evils of discrimination than upon the level of rates. The committee favored a system of mild regulation. The Act to Regulate Commerce, passed in 1887, was based largely on the Cullom report. But the divergent views of the House and the Senate had to be compromised before regulatory legislation could be enacted. The House wanted a prohibition of pooling; the Senate did not. The House desired a rigid long-and-short-haul clause; the Senate desired a flexible one. The Senate wished to create a commission to administer the law; the House, wary of administrative boards and executive appointments, wished to leave enforcement to the courts.

THE WABASH CASE

Enactment of a Federal law was made necessary by the decision of the United States Supreme Court in *Wabash, St. Louis & Pacific Railway Co. v. Illinois*, in 1886.⁶ It was held in this case that a State could not control rates on interstate traffic. The Wabash, St. Louis and Pacific Railway Company had charged a rate of 15 cents per hundred pounds on certain goods shipped from Peoria, in the State of Illinois, to New York City. At the same time a rate of 25 cents was charged on similar goods from Gilman, also in the State of Illinois, to New York City. Gilman is a point intermediate between Peoria and New York City. The higher rate from Gilman was in violation of a provision in the Illinois statutes prohibiting higher charges for shorter than for longer hauls over the same line. The United States Supreme Court held that this restriction could not apply on the shipments involved for they were interstate shipments, and under the Constitution the power to regulate interstate commerce had been delegated to the Federal Government.

⁵ *Report of the Senate Select Committee on Interstate Commerce*, 40th Cong., 1st sess., Senate Rep. No. 46.

⁶ 118 U.S. 557.

Prior to this decision it had been the common belief that in the absence of Federal regulation of interstate commerce, the State could impose its regulations upon the intrastate part of an interstate shipment. In fact, this had been done by the Granger laws, and the United States Supreme Court had found no merit in the contention of the carriers in the Granger cases, that such action was an interference with the power of the Federal Government. The Wabash decision made a sharp distinction between interstate and intrastate commerce. Rates on intrastate commerce were within the control of the State, but rates on interstate commerce were exclusively within the control of the Federal Government. State restrictions could not apply to interstate commerce, even in the absence of Federal regulation. Until the Federal Government should act, such commerce would remain unregulated. This decision made Federal action necessary, since approximately three-fourths of the railroad traffic was interstate in character and was beyond the reach of State laws. Whether this decision actually hastened action by Congress is open to question. It may have done so, but at the time of the decision a House and Senate conference committee was attempting to work out a compromise between the Reagan bill which had passed the House and the Cullom bill which had passed the Senate.⁷

THE ACT TO REGULATE COMMERCE, 1887

The Act to Regulate Commerce was approved by the President on February 4, 1887, and became effective on April 5. The Act was made applicable to all common carriers by railroad engaged in interstate or foreign commerce. This meant practically all railroads, since even intrastate railroads engage in interstate commerce, that is, carry traffic moving across State boundaries. The Act did not apply to common carriers wholly by water, although it included common carriers partly by railroad and partly by water when both were used "under a common control, management, or arrangement, for a continuous carriage and shipment." This language is indefinite and there has been some controversy over the exact scope of the law.⁸ It is perhaps needless to say that the provisions of the law applied only to interstate and foreign commerce and not to intrastate commerce.

⁷ Interstate Commerce Commission, Bureau of Statistics, *Interstate Commerce Commission Activities, 1887-1937* (Washington, Superintendent of Documents, 1937), pp. 31-32.

⁸ See ch. XXXI.

REASONABLENESS OF RATES

Section 1 of the Act required all rates to be "just and reasonable," and provided that "every unjust and unreasonable charge" was unlawful. This was practically a statutory repetition of the common-law rule that rates of common carriers should be just and reasonable.

PERSONAL DISCRIMINATION

Section 2 of the Act prohibited personal discrimination. The language of the section should be carefully noted:

That if any common carrier subject to the provisions of this act shall, directly or indirectly, by any special rate, rebate, drawback, or other device, charge, demand, collect, or receive from any person or persons a greater or less compensation for any service rendered, or to be rendered, in the transportation of passengers or property, subject to the provisions of this act, than it charges, demands, collects or receives from any other person or persons for doing for him or them a like and contemporaneous service in the transportation of a like kind of traffic under substantially similar circumstances and conditions, such common carrier shall be deemed guilty of unjust discrimination, which is hereby prohibited and declared to be unlawful.

Certain exceptions to this blanket prohibition were recognized in later sections of the Act. Thus the carriers were permitted to carry persons or property for the Federal, State, or municipal governments, or for charitable purposes, free or at reduced rates, and were permitted to grant free passes to their employees and certain other groups of individuals.

UNDUE PREFERENCE OR PREJUDICE

Section 3 proved to be one of the most important provisions of the Act. It prohibited undue preference or prejudice. The section may be called a blanket prohibition of any unjust discrimination, whether between persons, places, or kinds of traffic.⁶ The section read as follows:

That it shall be unlawful for any common carrier subject to the provisions of this act to make or give any undue or unreasonable preference or advantage to any particular person, company, firm, corporation, or locality, or any particular description of traffic, in any respect whatsoever, or to subject any particular person, company, firm, corporation, or locality, or any particular description of traffic, to any undue or unreasonable prejudice or disadvantage in any respect whatsoever.

It should be noted that the section did not prohibit all preferential or prejudicial rates, but only such as were "undue or unreasonable."

⁶ The Commission uses the terms "undue preference and prejudice" to refer to violations of Section 3 to distinguish them from "unjust discrimination" prohibited by Section 2, but both are discriminations in the usual sense of the word.

LONG-AND-SHORT-HAUL CLAUSE

Section 4, the Long-and-Short-Haul Clause, provided:

That it shall be unlawful for any common carrier subject to the provisions of this act to charge or receive any greater compensation in the aggregate for the transportation of passengers or of like kind of property, *under substantially similar circumstances and conditions*,¹⁰ for a shorter than for a longer distance over the same line, in the same direction, the shorter being included within the longer distance.

The Interstate Commerce Commission was authorized to make exception to this prohibition "in special cases."

POOLING

Section 5 of the Act prohibited pooling agreements. This provision represented the popular view that enforced competition was the best protection against unreasonable rates. There was considerable opposition to this provision on the part of those who saw that pooling was necessary to prevent ruinous competition. But the people, fearing railroad monopoly, were unwilling to permit it.

PUBLICATION OF RATES

Section 6 of the Act required the publication of rates and fares. It provided that no advance in rates or fares should be made except after ten days' public notice. Reductions in rates might be made without previous notice but must be posted immediately. Carriers were required to observe the published rates.

THE INTERSTATE COMMERCE COMMISSION

The Act created the Interstate Commerce Commission, which was to consist of five members, to be appointed by the President with the advice and consent of the Senate. The principal powers and duties of the Commission may be described as follows:

(1) It was given the power and duty to inquire into the business of common carriers and keep itself informed of the manner in which their business was conducted. To accomplish this purpose the Commission might require the attendance and testimony of witnesses, and the production of books, papers, contracts, agreements, and documents relating to any matter under investigation.

(2) The Commission was to hear complaints for alleged viola-

¹⁰ Italics ours.

tions of the Act. If the carriers did not satisfy the complaint the Commission was required to investigate the matter in dispute. If violations of the law were found the Commission was to order the carriers "to cease and desist" from the unlawful practice, and it was to determine the amount of damages, if any, suffered by the injured party.

(3) The Commission might require annual reports of the carriers and prescribe a uniform system of accounts.

(4) Annual reports were to be made to Congress by the Commission. These reports were to contain such information as might be of value in connection with the regulation of commerce, and any recommendations for additional legislation that the Commission considered necessary.

PENALTIES

Carriers were made liable for the full amount of damages sustained by any person in consequence of violations of the Act. Fines might also be imposed upon the carriers for certain offenses.

ENFORCEMENT OF THE COMMISSION'S ORDERS

If a carrier failed to obey an order of the Commission, the Commission might apply to a Federal court for an injunction or mandamus to enforce compliance with its order. The court might issue such an injunction or mandamus if satisfied that a lawful order of the Commission was being violated.

RESULTS OF THE ACT

The Act to Regulate Commerce had very beneficial results. The railroads, generally speaking, endeavored to conform to its provisions, and exhibited a disposition to obey the Commission's orders. Weaknesses in the Act appeared, however, which made additional legislation necessary. This became apparent when the Commission began to encounter resistance to its orders. As a result of a number of court decisions in 1896 and 1897, the Commission was shorn of much of its authority and importance. This situation continued until the enactment of the Hepburn Act in 1906. But before this comprehensive revision of the Act, a number of amendments and supplementary laws were enacted.

THE AMENDMENTS OF 1889

The first amendments to the Act were made in 1889. Three changes made at this time deserve mention.

Advance notice of three days was required before reductions in rates could go into effect. The original Act had required ten days' notice for increases, but no prior notice for decreases. Sudden reductions in rates caused annoyance and loss to shippers not informed of the coming change. Sometimes the result was equivalent to the granting of rebates, since favored shippers, forewarned of the reduction, had an advantage over their competitors who were not advised of the changes in rates.

A second change was the imposition of penalties upon shippers who induced carriers to discriminate in their favor or who obtained less than the regular rate by false billing, false weighing, and other devices. This measure was intended to relieve the pressure exerted by shippers desirous of special favors.

The amendments of 1889 gave injured shippers the right to bring action in court to compel the payment of damages awarded by the Commission. No method of enforcing orders of the Commission for the payment of damages had been provided by the original Act. The Commission had therefore declined to award damages, and had confined its attention to the prevention of further injuries.

THE COMPULSORY TESTIMONY ACT, 1893

In 1893 Congress passed a measure to aid the Commission in obtaining testimony. The original Act had given the Commission power to compel witnesses to testify. But the Fifth Amendment to the Constitution of the United States provides that "No person . . . shall be compelled in any criminal case to be a witness against himself." To guard against violation of this constitutional provision when forcing witnesses to testify, the Act to Regulate Commerce had provided that no evidence given under compulsion could be used against the person giving it, in any criminal proceeding. Similar protection had also been granted to witnesses by Section 860 of the Revised Statutes of the United States. But in 1892 the United States Supreme Court held that this protection was not sufficient in view of the constitutional rights of the witness under the Fifth Amendment. The Court held that the witness must be given "absolute immunity against future prosecution for the offense to which the question relates." Since Section 860 of the Revised Statutes did not go that far, witnesses were upheld in their refusal to testify.¹¹ This situation led to the enactment of the Compulsory Testimony Act.

This Act provided that no person should be excused from testifying

¹¹ 142 U.S. 547, 586 (1892).

in any proceeding before the Commission on the grounds that the testimony would tend to incriminate him, but that the witness compelled to testify should not be prosecuted or subjected to any penalty on account of anything concerning which he had testified. Until this Act was upheld by the United States Supreme Court,¹² the Commission had difficulty in obtaining information of violations of the Act to Regulate Commerce.

EXPEDITING ACT, 1903

The necessity of resorting to the courts for the enforcement of the Commission's orders resulted in prolonged and exasperating delays. Pending the outcome of the case in the courts, the Commission's order went unobserved and the rates and practices condemned by the Commission continued in effect. In 1897 the Commission stated that the average duration of the cases which had been prosecuted for the enforcement of its orders had been about four years.¹³ Congress sought to remedy this situation by the enactment of the Expediting Act in 1903.

By the provisions of this Act cases brought by the United States under the Act to Regulate Commerce or under the Sherman Anti-Trust Act of 1890 were to be expedited by the Circuit Courts. Upon certification by the Attorney General that a case of this sort was of public importance the court was to give it precedence over other cases and assign it for a hearing at the earliest practicable date. If there was appeal from the decision of a Circuit Court, the appeal was to be taken directly to the Supreme Court instead of to a Circuit Court of Appeals.

THE ELKINS ACT, 1903

By 1903 it had become apparent that the law relating to personal discrimination and rebating needed strengthening. The carriers themselves sponsored legislation of this sort because they were losing revenue as a result of the widespread discrimination and departure from published rates. Yet they were unable to stop the practice without the aid of the Government. As a result, the Elkins Act, dealing solely with the matter of personal discrimination, was passed by Congress without any opposition whatever. The Elkins Act contained four provisions that require emphasis.

First, the railway corporation itself was made liable for prosecution on account of unlawful discriminations and concessions. The courts

¹² *Brown v. Walker*, 161 U.S. 591 (1896).

¹³ *Annual Report*, 1897, p. 32.

had held under the original Act that the penalties could be imposed upon the officers, agents, and employees of a railroad, but not upon the corporation itself. Commenting upon this situation in 1892, the Commission said: "Under this view of the law the corporation itself, the real beneficiary of illegal practices, goes free, and the employes and agents, acting most generally under orders of their superiors, are made scapegoats for corporate delinquencies."¹⁴

A second provision of the Elkins Act made the receiver of rebates and concessions guilty of violating the law. Under the amendments of 1889 shippers might be prosecuted who obtained concessions by under-billing, false classification, and similar practices, or who induced railroads to discriminate in their favor by the use of such devices. But the law had not imposed penalties for receiving rebates when given voluntarily by the carrier. The imposition of penalties upon the receiver of a rebate was intended to relieve shipper pressure for rebates or concessions.

A third and important change brought about by the Elkins Act was that it made any departure from the published rate a misdemeanor. The original Act had made it unlawful for carriers to charge more or less than the rates provided in the published tariffs, but the provision seems to have been largely ignored and practically unenforceable because of its interpretation by the courts. The courts would not impose penalties for departure from the published rate, except possibly by a nominal fine, unless there was actual discrimination. And to prove discrimination, it was necessary to show not merely that a rebate had been paid but that other shippers, shipping the same kind of traffic at the same time under similar conditions, did not receive similar rebates.¹⁵ This made conviction extremely difficult, if not impossible.

Fourth, the Elkins Act also made certain changes in the penalties for violation of the law and strengthened enforcement provisions by authorizing the courts to enjoin carriers, upon proof of misconduct, from continuing unlawful discriminations or departures from the published rates.

THE HEPBURN ACT, 1906

The Elkins Act dealt only with personal discrimination, and that in its simpler forms. There was need of additional legislation if railroad regulation was to be effective. This was particularly true because of certain Supreme Court decisions which had greatly weakened the Com-

¹⁴ *Annual Report, 1892*, p. 39.

¹⁵ See *Annual Report, 1901*, p. 8.

mission's powers. President Theodore Roosevelt, in 1904 and 1905, had recommended more adequate regulation of carriers, and with characteristic vigor sought to convince Congress of the necessity for such legislation. The exposure of a number of railway scandals at this time strengthened the President's cause. In 1905 the House of Representatives passed a bill providing for a stronger system of regulation, but the Senate delayed action until 1906, and a compromise between the House and Senate bills was finally enacted. The railroads bitterly opposed the additional legislation, and they conducted a vigorous campaign in opposition to increased regulation. The provisions of the Hepburn Act may now be summarized.

EXTENSION OF THE COMMISSION'S JURISDICTION

Express companies, sleeping-car companies, and pipe lines used for the transportation of property other than water and gas, were brought within the scope of the Act. A number of accessorial services furnished by the railroads such as ventilation, refrigeration, and storage, were also brought under the jurisdiction of the Commission. The term "railroad" was defined to include switches, spurs, tracks, and terminal facilities. Privately owned cars were likewise subjected to the Commission's control. This extension of control was necessary for two reasons: first, the carriers often levied extra charges for these services, and the Commission had no control over them; second, instances of discrimination arose that could not be controlled by the Commission without jurisdiction over these services and facilities.

THE COMMISSION

The size of the Commission was increased from five to seven members, and their term of office was lengthened from six to seven years.

RATE-MAKING POWER

Perhaps the most important provision of the Hepburn Act was that which empowered the Commission, upon complaint, to prescribe maximum rates. This power was to be exercised only after existing charges had been found unlawful. The significance of this provision cannot be appreciated without a discussion of certain events which occurred in connection with the original Act. The Act to Regulate Commerce had stated that all rates were to be just and reasonable, and that all unjust and unreasonable rates were unlawful. And a commission had been

set up whose primary function was to hear complaints of violations of the Act, and to require the carriers to cease and desist from unlawful practices. The Commission had therefore assumed that if it found a certain rate unreasonable it could prescribe what, for the future, would be a maximum reasonable rate on the traffic in question. This practice was followed by the Commission from 1887 to 1897. In 68 out of 135 formal cases that had been decided during this time, the Commission had prescribed maximum reasonable rates, and the authority of the Commission to do so had not been questioned.¹⁶ But in 1896 the United States Supreme Court in the *Social Circle Case*¹⁷ incidentally remarked that it did not find any provision in the Act that "expressly, or by necessary implication" conferred upon the Commission power to fix rates. In the *Maximum Freight Rate Case*, decided in the following year, the matter was directly brought in issue and the Court held that the Commission was without power to prescribe rates for the future.¹⁸

The shipper was not entirely without a remedy from the imposition of unjust and unreasonable charges even though the Commission could not prescribe a rate for the future. He was entitled to reparation if an unreasonable rate had been charged. But there were several reasons why this remedy was inadequate. If the Commission could not state what would be a maximum reasonable rate for the future, the railroad could change a rate ever so little, and it would take another decision by the Commission to determine the lawfulness of the new rate. Reparation for having paid an unreasonable rate in the past is also unsatisfactory because the burden of the rate may not always be borne by the shipper. It may have been passed on to the consumer or back to the seller of the goods.

Without the power to prescribe a maximum reasonable rate for the future, the Commission was unable to give shippers and the public adequate protection from unreasonable charges. In the words of the Commission, it could condemn the wrong but could not prescribe the remedy.¹⁹ The effectiveness of regulation was greatly weakened by the decision in the *Maximum Freight Rate Case*. The Hepburn Act rem-

¹⁶ *Annual Report*, 1897, p. 11.

¹⁷ *Cincinnati, New Orleans & Texas Pacific Railway Co. v. Interstate Commerce Commission*, 162 U.S. 184, 196.

¹⁸ *Interstate Commerce Commission v. Cincinnati, New Orleans & Texas Pacific Railway Co.*, 167 U.S. 479.

¹⁹ *Annual Report*, 1904, p. 6.

edied the matter by a definite grant to the Commission of power to prescribe maximum rates.

It is to be noted that the law does not give the Commission power to prescribe rates in the first instance. Rates cannot be prescribed unless existing rates have been found unreasonable or otherwise unlawful. The power of the Commission, furthermore, was limited to the prescription of maximum rates. Neither the precise rate to be charged nor the minimum rate could be fixed by the Commission.

THROUGH ROUTES AND JOINT RATES

The Hepburn Act increased the Commission's power over through routes and joint rates. The Commission was given power to establish through routes when the carriers refused to do so and to prescribe maximum joint rates and the division thereof between participating carriers.

NOTIFICATION OF RATE CHANGES

Since 1889, ten days' notice had been required before increases in rates could take effect and three days' notice had been required for reductions in rates. The Hepburn Act provided for thirty days' notice for all changes in rates, increases or decreases. The Commission was authorized, however, to allow changes upon shorter notice if circumstances justified it.

PROVISIONS RELATING TO DISCRIMINATION

The extension of the Commission's jurisdiction over accessorial services and various facilities of transportation enabled it to reach certain forms of personal discrimination that could not be reached under the earlier law. But the Hepburn Act, in addition, contained a number of provisions relating specifically to personal discrimination.

(1) An anti-pass provision prohibited the granting of free passes except to certain specified groups of individuals. The original Act had not specifically prohibited free passes although the provisions forbidding unjust discrimination and undue preference applied to this practice. The Hepburn Act permitted the issuance of free passes to railroad employees and their families, officials and attorneys of the railroads, employees of sleeping-car and express companies, persons engaged in charitable and religious work, inmates of charitable institutions, and indigent, destitute, and homeless persons, and certain other groups.

(2) The Hepburn Act also contained the so-called "commodities

clause." This was aimed at a particular type of discrimination. It had been found that railroads which owned coal mines or engaged in the production of other commodities in competition with independent producers had a distinct advantage over the independents. By charging high rates the railroad could undersell and force out its competitors and monopolize the production of the commodity in question. If the railroad paid no rates on the goods it produced, its advantage in maintaining high rates on this particular commodity was obvious. If the railroad-owned industry, operating as a subsidiary of the railroad company, paid transportation charges on the goods it shipped, the advantage to the railroad in maintaining high rates was the same, since the payment of the freight charges was simply taking money from one pocket and transferring it to the other. To prevent this type of discrimination Congress sought to separate the railroad business from other forms of enterprise. In effect, the commodities clause prohibited a railroad from engaging in the production of goods commercially, but the result was accomplished indirectly. The law prohibited a carrier engaged in interstate commerce from transporting articles in interstate commerce which it had produced or in which it had an interest. Lumber, however, was excepted from the rule because of the many small railroads owned by lumbering concerns and constructed as adjuncts of lumbering operations. The commodities clause did not prevent railroads from producing commodities for their own use. The clause was aimed particularly at the monopolization of anthracite coal production by the railroad companies.²⁰

(3) The penalties for rebating and similar practices were changed in certain respects, and it was provided that the receiver of a rebate should, in addition to other penalties, forfeit to the United States a sum of money three times the amount received as a rebate for the six years previous.²¹

ACCOUNTS AND STATISTICS

The Act of 1887 had empowered the Commission to require annual reports of the carriers, and had given it authority to require a uniform system of accounts. There was no adequate machinery for enforcing this section of the law, and the carriers in many instances refused to give the Commission information for which it asked. The Hepburn Act

²⁰ See ch. XX.

²¹ In its *Annual Report* for 1936, p. 48, the Commission said that the forfeiture provision had been applied in only one case since its enactment.

strengthened the hand of the Commission by authorizing it to employ agents or examiners for the purpose of inspecting accounts, and provided penalties for refusal to submit reports in the form stated or for misrepresenting the accounts.

ENFORCEMENT PROVISIONS

Next to the maximum-rate provision perhaps the most important provision of the Hepburn Act was the change made in the procedure for the enforcement of the Commission's orders. Orders of the Commission under the original Act, were not binding upon the carrier unless supported by a court order compelling obedience. This procedure made it necessary for the Commission to bring action in court to get its orders enforced. The procedure was unsatisfactory for several reasons. In the first place, it caused great delay in the enforcement of the Commission's orders. Several years might elapse before the courts compelled the carriers to observe an order. The Expediting Act of 1903 had not entirely eliminated this difficulty. A second objection to this method of enforcement was that it increased the work of the Commission, since that body had to show affirmatively that its order should be enforced. In the third place, this procedure reduced the Commission to an insignificant place in the system of regulation. The question once decided by the Commission had to be redecided by the courts. The Act of 1887 had provided that the Commission's reports and orders were to be "prima facie" evidence of the matters therein stated. Although this did not preclude a reconsideration of the facts by the court nor prevent the consideration of evidence not presented to the Commission, it was probably the intent of the law that the orders of the Commission should be enforced by the courts unless it was plainly evident that there was some reason for not doing so. It was not intended that a court should constitute itself another commission, as it were, to retry the matter once decided by the Commission. The courts, however, frequently reopened the whole proceeding, *de novo*. This situation was made even worse by the practice of allowing new evidence to be introduced before the court. This practice discouraged the presentation of evidence before the Commission. Why should the carriers present their evidence before the Commission, if the Commission's order was of so little consequence, and if the evidence must all be presented again before a court? In commenting upon this situation the Commission had said in 1897: "The same case is not tried before the court which is tried before the

Commission. The trial before the Commission, therefore, with all its attendant expense and consumption of time, goes practically for nothing. The decisions of the Commission are made upon one state of facts, while the decisions of the courts may be, and usually are, upon an entirely different state of facts. When the court refuses to enforce a decree of the Commission, it apparently decides that the order was wrong, although upon the facts before the Commission it might have been absolutely right . . . A procedure like the present one tends to bring that body into disrepute and is grossly unfair to it and to the complainants who appear before it."²²

To remedy this state of affairs the Hepburn Act made the Commission's orders binding upon the carrier.²³ Orders of the Commission were to take effect in not less than thirty days and might continue in effect for two years.²⁴ For disobeying an order of the Commission a fine of \$5,000 was provided, and each day of a continuing violation was to constitute a separate offense. This procedure made the Commission's orders binding without court action. Should a railroad refuse to obey an order, in spite of the penalty attached, the Commission still had the right to seek court action to enforce compliance with its order. And in such case the Act provided that the injunction or mandamus should issue if the order of the Commission "was properly made and duly served." This would seem to restrict the right of judicial review in cases of this type, but there has been no authoritative court decision on this question. Between 1906 and 1930 the Commission found it necessary only in three instances to bring suit to enforce its orders.²⁵

The right of judicial review of the Commission's orders was specifically recognized in the Hepburn Act, because the Act provided that the orders of the Commission were binding upon the carrier unless set aside by a court of competent jurisdiction. Carriers objecting to the Commission's orders might bring action in court to set aside the order. This left the way open for a continuance of the practice of reopening cases once decided by the Commission and allowing new evidence to be introduced. But the courts were soon to limit their own authority in reviewing orders of the Commission, confining themselves largely to questions of law and not of fact.

²² *Annual Report, 1897*, pp. 31-32.

²³ Orders for the payment of money were still to be enforced through the courts.

²⁴ The two-year limit was eliminated in 1920.

²⁵ Aitchison, Clyde B., *Interstate Commerce Acts Annotated*, 70th Cong. 1st sess., Senate Document No. 166 (1930), p. 2192.

THE MANN-ELKINS ACT, 1910

The Hepburn Act went a long way toward making regulation effective, but it did not remedy all the weaknesses that had developed in the original law. Further legislation was needed. The platform on which Mr. Taft was elected to the Presidency in 1908 was pledged to further regulation. Bills embodying the administration's proposals were introduced in Congress, but the insurgent element took matters in their own hands, and the bill which was finally passed as the Mann-Elkins Act of 1910 bore little resemblance to President Taft's proposals. Only the major provisions of the Act need be considered here.

RESTORATION OF THE LONG-AND-SHORT-HAUL CLAUSE

The most important provision of the law was the amendment of the Long-and-Short-Haul Clause which had been rendered ineffective by a decision of the United States Supreme Court in 1897. The original Act provided that railroads could not "under substantially similar circumstances and conditions" exact more for a shorter than for a longer haul over the same line and in the same direction.²⁶ The Supreme Court held in the *Alabama Midland Case*²⁷ that the carriers might in the first instance determine for themselves whether conditions at the through and intermediate points were similar or not, and that competition at the through point and not at the intermediate points might create a dissimilarity of circumstances and conditions such that the prohibitions of the section did not apply. The result was a wholesale disregard of the Fourth Section by the railroads. If called upon to justify higher charges for shorter than for longer hauls, the carriers could defend themselves by showing that competition created circumstances at the through points which were not similar to the circumstances and conditions at the intermediate points. If competition justified lower rates at through points the Long-and-Short-Haul Clause was absolutely without effect since it is only when competition forces a low through rate that the railroad maintains higher rates at intermediate points. In other words, the clause could never correct the situations it was designed to remedy, for each case would be an exception to which the rule did not apply. From 1897 to 1910 the Long-and-Short-Haul Clause was practically a dead letter. The Hepburn Act had made no attempt to revive the Fourth Section, and the Commission was powerless to prevent what Commissioner

²⁶ See p. 218, *supra*.

²⁷ 168 U.S. 144 (1897).

Knapp had called "the most irritating and obnoxious form of discrimination that has been encountered."²⁸

The Mann-Elkins Act restored the Long-and-Short-Haul Clause by striking out the qualifying phrase "under substantially similar circumstances and conditions." This made the prohibition of higher charges for shorter than for longer hauls apply unless exception was made by the Interstate Commerce Commission. The railroads could no longer disregard the prohibitions of Section 4 and plead dissimilarity of circumstances and conditions when an attempt was made to enforce the provisions of the law.²⁹

RATE-SUSPENSION POWER

Under the Hepburn Act the Commission's power to change rates applied only to rates already in effect. The Commission had no power to determine the reasonableness of a proposed rate. After a rate had gone into effect the Commission might entertain the question of its reasonableness, and if the rate was found to be unreasonable it could require the rate to be changed, and it could award reparation to the parties who had paid the unreasonable charge. But this remedy was unsatisfactory. The long-established rule regarding reparation is that the shipper who has paid an unreasonable charge may recover, on shipments which have actually moved, the difference between the rate charged and the rate found reasonable. But often the burden of the unreasonable charge is not borne by the shipper. He may have shifted the burden to the consumer of the goods, or he may have shifted it back to the producer of the commodity. But the shipper or consignee is ordinarily the party entitled to recover, and the real sufferers from the unreasonable charge have no remedy. In other cases the shipper who is entitled to recover is not fully compensated for the damages suffered. If the high rate has prevented sales and hence shipments to a given market, the right to recover the difference between the rate charged and the reasonable rate on shipments made is the right to recover nothing. Yet the damage to one's business may have been great. It is therefore desirable to prevent an unreasonable rate from going into effect rather than to award reparation after it has gone into effect.

But if the Commission must approve of the rate before it goes into

²⁸ Quoted in Dixon, F. H., "The Mann-Elkins Act, Amending the Act to Regulate Commerce," 24 *Quarterly Journal of Economics* 593, 598 (1910).

²⁹ See ch. XXII.

effect, an injury may be done the railroad, for if an increase in rates is justified but has been delayed for a long time pending a determination of its reasonableness, the carrier has been deprived of revenue to which it is justly entitled.

Congress attempted to meet this situation in a way that would be fair both to the public and to the railroads. The Mann-Elkins Act authorized the Commission to suspend proposed changes in rates for a period of not exceeding 120 days, during which time it was to determine the lawfulness of the proposed rates. An additional suspension period of six months was permitted if the first 120 days were insufficient.³⁰ If the lawfulness of the rates was not determined during the period of suspension, the proposed rates would go into effect, but they might be reduced subsequently if found unreasonable or otherwise unlawful.³¹

It should be noted that the Commission was authorized, but not required, to suspend proposed changes in rates. Thousands of rates are changed every year without suspension and without investigation by the Commission.

The rate-suspension provisions also affected the burden of proof in many rate cases. Proceeding upon the theory that a person proposing a change in rates might reasonably be required to justify the change, the Mann-Elkins Act provided that the burden of proof should be on the railroad to show the reasonableness of any rate proposed to be increased after the passage of the Act, and that in any hearing involving the reasonableness of rates increased after January 1, 1910, the burden of proof should be upon the carrier.

THE COMMERCE COURT

The Mann-Elkins Act created a special Commerce Court, consisting of five judges, to try cases brought to enforce or to set aside orders of the Interstate Commerce Commission, and certain other classes of cases relating to interstate commerce. It was thought that a special court of this nature would speed the process of determining the validity of Commission orders. There was to be direct appeal from the Commerce Court to the Supreme Court of the United States.

The Commerce Court had an unfortunate history, and it was abol-

³⁰ The rate-suspension period has been changed from time to time and is now seven months.

³¹ For a criticism of the rate-suspension power from a railroad standpoint see Van Meter, Arthur, "The I. & S. Proceeding—Its Significance in a System of Modern Rate Making," 11 *I.C.C. Practitioners' Journal* 100 (1943).

ished in 1913.³² Jurisdiction over the class of cases assigned to it was transferred back to the District Courts, but no injunction restraining enforcement of an order of the Commission was to be issued unless the case had been heard before three judges, at least one of whom was to be a circuit judge. Appeals from the decisions of these special three-judge courts were to go directly to the Supreme Court of the United States instead of to the Circuit Courts of Appeal.

RAILROAD SECURITIES COMMISSION

President Taft had recommended to Congress that the Interstate Commerce Commission be given control over the issuance of railroad securities. Congress did not, in 1910, see fit to adopt the President's recommendation. Instead, the Mann-Elkins Act authorized the President to appoint a special commission, to be known as the Railroad Securities Commission, to investigate the matter further. The Railroad Securities Commission was a temporary investigating body and went out of existence after rendering its report to the President.³³

VALUATION ACT, 1913

In 1898 the United States Supreme Court had set up a standard for the determination of the reasonableness of the general level of railroad rates. "We hold," said the Court, "that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public . . . What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience."³⁴

If "fair value" was to be made the basis of rate making, it is clear that some authoritative determination of that value was desirable. As early as 1903 the Commission had recommended that a valuation of the railroads should be made.³⁵ The carriers were at first disposed to oppose the Commission in this recommendation. But in two cases arising in 1910 the carriers sought general increases in rates,³⁶ and the Commission refused to approve of the advances because the carriers had

³² District Court Jurisdiction Act, 38 Stat. 219.

³³ See ch. XXIV.

³⁴ *Smyth v. Ames*, 169 U.S. 466, 546, 547.

³⁵ *Annual Report*, 1903, p. 26.

³⁶ *Advances in Rates—Eastern Case*, 20 I.C.C. 243 (1911), and *Advances in Rates—Western Case*, 20 I.C.C. 307 (1911).

failed to show the reasonableness of the increased rates. One reason for the inability to substantiate the need for higher rates was the lack of any acceptable valuation of the property of the railroads. "It is plain," said the Commission in one of these cases, "that a physical valuation would introduce into the calculation a new element which might lead to a different conclusion."³⁷ It had now become apparent that it was in the interest of the railroads to have a valuation made of their properties, and opposition to the valuation proposal ceased.

The Valuation Act of 1913 directed the Commission to make a valuation of all the railroad properties in the United States.

COMMISSION DIVISIONS ACT, 1917

An enlargement and reorganization of the Commission was made imperative by the increasing number of duties imposed upon it by the supplementary legislation enacted after 1887 and also by the increasing number of complaints filed with the Commission when it came to be an effective regulatory agency. The result was the enactment of the Commission Divisions Act in 1917.

By the provisions of this Act the size of the Commission was increased from 7 to 9 members. But more important was the provision authorizing the Commission to organize into divisions of not less than three members each. This enabled the Commission to handle more work, particularly since decisions made by a division were to have the same effect and force as decisions of the whole Commission. The right of appeal from the decision of a division to the whole Commission was recognized, thereby preventing inconsistency and conflict in the decisions of the various divisions and enabling the more important controversies to be brought before the entire Commission.

ESCH CAR-SERVICE ACT, 1917

The Esch Car-Service Act required the carriers to establish reasonable car-service rules. Car service, as defined by the Act, included "the movement, distribution, exchange, interchange, and return of cars used in the transportation of property." The Commission was given power to determine the reasonableness of these rules and to prescribe reasonable ones in lieu of those found unreasonable.³⁸

³⁷ 20 I.C.C. 243, 305.

³⁸ A more detailed description of car-service regulation may be found in ch. XXV.

THE WAR PERIOD

In April, 1917, the United States entered World War I. On December 28, by virtue of a proclamation of the President, the operation of the railroads of the United States was taken over by the Government acting through the United States Railroad Administration which had been created for the purpose. The railroads remained under Federal control and operation during the war and until March 1, 1920. This period represents a hiatus in the policy of private operation of railways which has so long been the established policy of the country. With the termination of Federal control in 1920 and the return of the railroads to their owners, important modifications in our regulatory policy took place. The Transportation Act of 1920, which embodied these changes, may therefore be considered as opening a new chapter in the history of railroad legislation in the United States.

SELECTED REFERENCES

There is a large amount of pamphlet and periodical literature dealing with railroad regulation and legislation. Much of it is partisan in nature, particularly that which appeared during the periods when important legislation was under consideration and when the problem of railroad control was a political issue. The reports of the Windom and the Cullom committees give a good picture of the railroad problem as it appeared during the period just prior to Federal legislation. The Windom report is entitled *Transportation Routes to the Seaboard*, 43d Cong., 1st sess., Senate Report No. 307 (1874). The Cullom report is entitled *Report of the Senate Select Committee on Interstate Commerce*, 40th Cong., 1st sess., Senate Report No. 46 (1886). The history of early railroad legislation in Congress and attempts at legislation is best described in L. H. Haney, *A Congressional History of Railways in the United States, 1850-1887*, Bulletin of the University of Wisconsin No. 342 (Madison, 1910). An interesting account of the background and origins of the Act of 1887 may be found in Clyde B. Aitchison, "The Roots of the Act to Regulate Commerce," in *Exercises Commemorating the Fifty Years' Service of the Interstate Commerce Commission* (Washington, Government Printing Office, 1937).

The development of Federal legislation applicable to railroads is told in many general works on transportation. W. Z. Ripley's *Railroads: Rates and Regulation* (New York, Longmans, 1912), chs. XIII-XVII, is especially good and gives somewhat more background than later treatments, doubtless because it was written so shortly after the struggle to bring about effective regulation. Other accounts of the legislation prior to 1920 may be found in E. Jones, *Principles of Railroad Transportation* (New York, Macmillan, 1924), chs. XI-XIV; S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), chs. VIII-X; Kent T. Healy, *The Economics of Transportation in America* (New York, Ronald Press, 1940), pp. 381-400; Stuart Daggett, *Principles of Inland Transportation*,

3d ed. (New York, Harper's, 1941), pp. 730-747; and Truman C. Bigham, *Transportation: Principles and Problems* (New York, McGraw-Hill, 1946), ch. 6.

A good discussion of the Act to Regulate Commerce, written at the time of the passage of the Act, is by E. R. A. Seligman in "Railway Tariffs and the Interstate Commerce Law," 2 *Political Science Quarterly* 223 and 369 (1887). The Hepburn Act is described by F. H. Dixon in "The Interstate Commerce Act as Amended," 21 *Quarterly Journal of Economics* 22 (1906), and by H. S. Smalley in "Rate Control Under the Amended Interstate Commerce Act," 29 *Annals of the American Academy of Political and Social Science* 292 (1907). The legislation of 1910 is also described by F. H. Dixon in "The Mann-Elkins Act, Amending the Act to Regulate Commerce," 24 *Quarterly Journal of Economics* 593 (1910). An excellent review of the Mann-Elkins Act and its administration is in F. H. Dixon, *Railroads and Government* (New York, Scribners, 1922), chs. II-VII. A description of Federal legislation as it developed prior to 1920 is in I. L. Sharfman, *The Interstate Commerce Commission*, Part I (New York, The Commonwealth Fund, 1931), chs. I and III. See also Clyde B. Aitchison, "The Evolution of the Interstate Commerce Act, 1887-1937," 5 *Geo. Washington Law Rev.* 289 (1937), pp. 289-356; Interstate Commerce Commission, Bureau of Statistics, *Interstate Commerce Commission Activities, 1887-1937* (Washington, Superintendent of Documents, 1937), pp. 25-43; and Emory R. Johnson, *Government Regulation of Transportation Agencies* (New York, Appleton-Century, 1938), pp. 219-233.

CHAPTER XI

THE TRANSPORTATION ACT OF 1920

THE occasion for the enactment of the Transportation Act of 1920, otherwise known as the Esch-Cummins Act, was the transition from war-time operation of railroads by the Government back to private operation. A certain amount of legislation was needed if the transition was to be made successfully. But Congress seized upon this opportunity to review our entire policy of regulation and to make such modifications in it as seemed desirable. Extensive Congressional hearings on the subject were held in 1919 and 1920. At this time interested individuals and organizations were given an opportunity to present their views concerning our regulatory system and the changes which should be made.¹

The resulting legislation, embodied in the Transportation Act of 1920, did two things. It further extended the system of control over railroads, increasing the Commission's power and embracing some matters not theretofore brought within the scope of the Commission's authority. In the second place, the Act radically modified certain policies of regulation which had been followed before that time. Each of these accomplishments merits brief explanation before we turn to a consideration of the details of the new legislation.

INCOMPLETENESS OF REGULATION

Railroad regulation of the pre-war period was inadequate in a number of respects. There was no control over railroad capitalization except that which was exercised by State governments. Although the evils of stock-watering and overcapitalization had long been subjects of complaint, the theory had generally prevailed that control over rates could prevent excessive charges that might otherwise result from inflated capitalization. But as early as 1907 the Interstate Commerce Commission had urged control over railroad capitalization.² President Theodore

¹ See *Hearings on Extension of Tenure of Government Control of Railroads*, 65th Cong., 3d sess., and *Hearings on Return of the Railroads to Private Ownership*, 66th Cong., 1st sess. These plans are summarized in Jones, E., *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. XXIII; Dixon, F. H., *Railroads and Government* (New York, Scribner's, 1922), ch. XV; and Sharfman, I. L., *The American Railroad Problem* (New York, The Century Co., 1921), pp. 357-374.

² *In re Consolidation of Railroads*, 12 I.C.C. 277 (1907).

Roosevelt emphasized the necessity for such regulation, and in 1910 President Taft recommended that Congress enact legislation dealing with the subject. But not until 1920 did Congress see fit to clothe the Interstate Commerce Commission with power over the issuance of new securities by railroad companies.

Control over railroad service was likewise inadequate. Prior to 1920, regulation had been concerned with rates and discrimination, and very little with service. In the years which preceded World War I the public frequently suffered great inconveniences on account of car shortages, traffic congestion, and embargoes on freight. This was partly due to inadequate transportation facilities, and partly to failure, under a system of intense competition, to utilize to best advantage the facilities that were available. Here was a shortcoming in our system of regulation that called for some attention. Nearly all proposals submitted to Congress in 1919 recognized the necessity for additional control over railroad service.

A third shortcoming in our system of regulation had been the inadequacy of the machinery for the settlement of railroad labor disputes. The public can ill afford to permit the interference with transportation service which results from strikes and strained relations between railroads and their employees. Machinery for the settlement of labor disputes on railroads had been provided in earlier legislation, but the system had broken down in time of greatest need.³ Controversies over wages and working conditions were impending in the period after the war, and the necessity of machinery capable of coping with the situation was keenly felt at the time.

POSITIVE DEFECTS IN THE REGULATORY SYSTEM

In addition to these negative defects in the system of regulation, there were two positive defects. First, the policy of enforced competition which had characterized railroad regulation from the beginning was a mistake; and secondly, the system of regulation was too restrictive.

THE POLICY OF ENFORCED COMPETITION

The policy of enforced competition was a natural result of reliance on competition as a regulator of prices and service throughout industry

³ This machinery had been provided by the Erdman Act of 1898, and the Newlands Act of 1913. For a description of this legislation, see Jones, *op. cit.*, ch. XX. This legislation had provided for a system of mediation and voluntary arbitration.

generally. We have noted, however, that competition between railway lines cannot be relied upon as a regulator of rates.⁴ Competition tends to reduce rates to prime costs and leaves insufficient revenue to meet fixed or constant expenses and a return on capital. The public was slow to realize this, and fearing monopoly, had endeavored to break up all agreements between railroad companies devised to restrict competition. Provisions of the Granger laws prohibiting combinations of competing railroads, and the anti-pooling provisions of the Act to Regulate Commerce were indications of the prevailing view. Anti-trust laws, when applied to railroad combinations, represented the same policy.⁵

The policy of enforced competition, although not carried out with complete success, was unfortunate in many respects. It encouraged the cutting of rates to unremunerative levels. It resulted in local discrimination since rates at competitive points were cut to extremely low levels. Rebating and other forms of personal discrimination were also natural consequences of the struggle between rival lines for traffic. Competition resulted in wasteful hauls by circuitous lines, in cross-hauling, and in other instances of carrying goods unnecessarily long distances. It resulted in the extension of free privileges to shippers on an excessive scale, and in unjustifiable elaboration of service, thereby increasing the expenses of the railroads. Lastly, it resulted in the duplication of railroad facilities and the investment of capital in unnecessary railroad lines.

RESTRICTIVE REGULATION

Regulation prior to 1920 had been restrictive in its approach. Regulation had originated in an effort to prevent certain abuses. The function of the Interstate Commerce Commission was to protect the public against extortionate and unjustly discriminatory charges, and the Commission had no particular responsibilities toward the carriers. This fact was particularly noticeable after 1910. The Mann-Elkins Act had cast upon the railroads the burden of proof in rate cases involving rates increased after 1910. It chanced that steadily rising prices after 1910 made it necessary for the carriers to advance rates. Since the law put the burden of proof upon the carriers it was difficult for them to prove the reasonableness of the proposed rates. It was only with extreme difficulty that the carriers obtained increases, and then they received smaller in-

⁴ Pp. 133-134 and 142-143, *supra*.

⁵ This policy is described more fully later. See ch. XIV.

creases than seemed necessary to them. The Commission, although not refusing to consider the financial necessities of the carriers, objected to the efforts of railroad counsel to establish the Commission *in loco parentis* toward the railroads.

There developed a feeling on the part of railroad executives and investors in railroad securities that the law ought to place upon the Commission some responsibility for giving the railroads an adequate income. But the immediate cause of the movement to protect railroad earnings grew out of the impaired credit situation which confronted the carriers after the war. The gradual rise of prices and the tardy increase in rates had impaired railroad credit prior to our entrance into the war. This had made it difficult for the carriers to obtain needed capital. Financial mismanagement and excessive competition with its resulting waste had contributed to the debacle. The situation was aggravated during the period of Federal operation because rates were not increased sufficiently to meet the higher operating cost. This was not a serious matter during the war period, since the railroads were guaranteed a certain income, which came out of the Federal treasury in so far as receipts from operation of the railroad did not cover the guaranteed net income. But the situation threatened to be very serious if the roads were turned back to their owners and the financial support of the Government was withdrawn. Rate advances would be necessary, and it was essential that they be made with the minimum of delay. In view of this situation Congress placed upon the Interstate Commerce Commission the responsibility of giving the railroads an opportunity to earn adequate income. In the words of the United States Supreme Court the railroads were placed under "the fostering guardianship and control of the Commission."⁶ And in interpreting the provisions of the Transportation Act the Court pointed out that the purpose of regulation was not only to protect the shipper against abuses, but "to foster, protect and control the commerce with appropriate regard to the welfare of those who are immediately concerned, . . . and to promote its growth and insure its safety."⁷ The dominant purpose running through the whole Transportation Act of 1920 was the promotion of an adequate system of transportation for the country. All of the major provisions of the Act were directed to this end.

We may now turn to a discussion of the provisions of the Act.

⁶ *Dayton-Goose Creek Ry. Co. v. United States*, 263 U.S. 456, 478 (1924).

⁷ *Ibid.*

RULE OF RATE-MAKING

One of the most important provisions of the Act of 1920 was the Rule of Rate-Making, incorporated into the law as Section 15a of the Interstate Commerce Act.⁸ Section 15a provided that

In the exercise of its power to prescribe just and reasonable rates the Commission shall initiate, modify, establish or adjust such rates so that carriers as a whole (or as a whole in each of such rate groups or territories as the Commission may from time to time designate) will, under honest, efficient and economical management and reasonable expenditures for maintenance of way, structures and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation: *Provided*, That the Commission shall have reasonable latitude to modify or adjust any particular rate which it may find to be unjust or unreasonable and to prescribe different rates for different sections of the country.

The Commission was to determine from time to time what should be considered a fair rate of return, but this had to be uniform throughout the country. In fixing the fair rate of return the Commission was to give due consideration "to the transportation needs of the country and the necessity (under honest, efficient and economical management of existing transportation facilities) of enlarging such facilities in order to provide the people of the United States with adequate transportation." Congress prescribed 5½ percent, however, as the fair rate of return for the first two years that the section was in force, but it authorized the Commission to add an amount not exceeding one-half of one percent to make provision for improvements and betterments.⁹ The Commission was also to determine the aggregate value of the railroad properties for the purpose of administering the section, but the values found under the Valuation Act of 1913 were to be used when available.

Certain points regarding Section 15a need emphasis. In the first place, the section did not constitute a guaranty. It was certainly not a guaranty in the sense that the Government must make good any failure to earn the prescribed return. Neither was it a guaranty in the sense that failure to earn a fair return in a given year required an increase in rates. This is what the Commission had in mind when it said of Section 15a: "It does not constitute a guaranty to the carriers, nor is the obligation

⁸ After 1920, the Act to Regulate Commerce as amended is referred to as "The Interstate Commerce Act."

⁹ In *Increased Rates*, 1920, 58 I.C.C. 220, the Commission added the one-half of 1 percent and authorized increases intended to give the carriers 6 percent on an estimated value of \$18,900,000,000. In *Reduced Rates*, 1922, 68 I.C.C. 676, the Commission fixed 5¾ percent as a fair rate of return. No subsequent changes were made in the rate of return deemed "fair."

cumulative. We are not restricted by past or present statistics of operation and earnings . . . What is contemplated by the law is that in this exercise of our rate-making power the result shall reflect our best judgment as to the basis which may reasonably be expected for the future to yield the prescribed return.”¹⁰

Another point regarding the Rule of Rate-Making which can not be too strongly emphasized is that it applied to the carriers as a whole, or in rate groups, and not to individual carriers. When rates are based on aggregate property values an individual carrier may obtain more or less than a fair return. Operating and traffic conditions differ so widely on different roads that a level of rates which gives the carriers, as a whole or in groups, a fair return will be wholly inadequate for certain lines, and will give others far more than a fair return.¹¹

The wording of Section 15a was subsequently changed,¹² but the obligation imposed upon the Commission to consider the revenue needs of the carriers is still a part of the law. The original Section 15a clearly indicated the purpose of Congress to see that railroad earnings were adequate to support railroad credit—an essential part of the broader purpose of securing an adequate transportation system for the country.

THE RECAPTURE CLAUSE

Because rates prescribed under the Rule of Rate-Making would give some carriers excessive earnings and would leave others with revenues which were inadequate, Congress included in the Act the provisions which came to be known as the Recapture Clause. The recapture provisions provided that one-half the earnings of a carrier in any year which were in excess of 6 percent on the value of its property should be paid to the Interstate Commerce Commission and placed in a railroad contingent fund. From this fund loans were to be made to the carriers for capital expenditures, or to refund maturing obligations. As an alternative the Commission might purchase equipment with the recaptured earnings and lease the same to the railroads. Loans from the fund were to bear interest at 6 percent, and were to be adequately secured. Rentals of equipment purchased from the fund were to pay a return of at least 6 percent plus depreciation.

The other half of the excess was to be retained by the carrier, but

¹⁰ *Rates on Grain, Grain Products & Hay*, 64 I.C.C. 85, 99 (1921).

¹¹ This problem is discussed more fully in ch. XVII.

¹² See p. 266, *infra*.

was to be placed in a reserve fund for the payment of interest, dividends, and rentals to the extent that its income in any year fell short of 6 percent on the value of its property, and the fund might not be drawn upon for any other purpose. When the reserve fund amounted to more than 5 percent of the value of its property the carrier was to be permitted to use its share of further excess earnings for any lawful purpose.

The recapture provisions, we have seen, were a logical part of the system of rate making which based rates upon aggregate property values. This was made clear by the language of the Act. "Inasmuch as it is impossible . . . to establish uniform rates upon competitive traffic which will adequately sustain all the carriers which are engaged in such traffic and which are indispensable to the communities to which they render the service of transportation, without enabling some of such carriers to receive a net railway operating income substantially and unreasonably in excess of a fair return upon the value of their railway property held for and used in the service of transportation, it is hereby declared that any carrier which receives such an income so in excess of a fair return, shall hold such part of the excess as hereinafter prescribed, as trustee for, and shall pay it to, the United States." The Recapture Clause sought to marshal the earnings for the purpose of supporting the credit of all the railroads. The half retained by the carrier was to be used to stabilize interest and dividend payments, and the half recaptured by the Government was to be used for the purpose of making loans to needy railroads, providing them with a new source of credit and perhaps enabling them to improve the earning position of their properties.¹³

DIVISION OF JOINT RATES

The Recapture Clause was not the only provision of the law designed to bring relief to weak carriers. The Transportation Act also contemplated that in the division of joint rates consideration should be given to the weaker roads. The Mann-Elkins Act provided that when railroad companies could not agree upon the division of joint rates, the Commission might prescribe the share each was to receive. By the Transportation Act the Commission was directed, in making such divisions, to give consideration to "the amount of revenue required to pay their respective operating expenses, taxes, and a fair return on their railway property held for and used in the service of transportation." The Supreme

¹³ The Recapture Clause was repealed in 1933. See p. 266, *infra*.

Court of the United States in interpreting this section of the law pointed out that it was intended to help weak lines "by preventing needed revenue from passing to prosperous connections."¹⁴

MINIMUM RATES

As early as 1893 the Interstate Commerce Commission had seen the desirability of controlling rate reductions.¹⁵ Congress did not act upon this recommendation until 1920. The Transportation Act empowered the Commission to prescribe minimum rates. The grant of this power is evidence of a change in the policy of enforced competition. The Commission was given this power for the purpose of preventing rate wars and the undermining of a rate level prescribed under Section 15a. Incidentally the grant of this power enabled the Commission to deal more effectively with discriminating rates.

POOLING

The Act of 1920 modified our historic policy toward pooling agreements. The Act of 1887, it will be recalled, contained an absolute prohibition of pooling. The wisdom of this drastic provision was questioned at the time, and was discussed by the Commission from time to time in its annual reports. The Transportation Act repeated the old prohibition but added a proviso which permitted pooling when approved by the Commission. Under the amended Act the Commission's approval is dependent upon a finding that the pooling agreement (1) "will be in the interest of better service to the public, or economy in operation," and (2) "will not unduly restrain competition." The Commission may authorize pooling upon such terms and conditions as it finds just and reasonable, but the pooling arrangement must have the assent of all of the carriers involved. The "carriers involved" whose assent must be obtained are the carriers which are parties to the proposed pooling agreement. The phrase does not include outside carriers which might be adversely affected by a pooling agreement through diversion of traffic or in some other way.¹⁶

RESTRICTIONS ON NEW CONSTRUCTION

The Transportation Act gave the Interstate Commerce Commission control over new railroad construction. The law provided that "no

¹⁴ *The New England Divisions Case*, 261 U.S. 184, 191 (1923).

¹⁵ *Annual Report*, 1893, pp 38-39, 217-225.

¹⁶ *Escanaba & Lake Superior R. R. Co v. U.S.*, 303 U.S. 315 (1938).

carrier by railroad subject to this act shall undertake the extension of its line of railroad, or the construction of a new line of railroad . . . unless and until there shall first have been obtained from the Commission a certificate that the present or future public convenience and necessity require or will require the construction . . . of such additional or extended line of railroad."

Senator Cummins, in defending this provision of the bill before the Senate, pointed out the necessity for such a measure. "If there is any one thing from which the transportation system of the country, taken as a whole, is now suffering, it is from the unguided, uncontrolled right of owners to build railroads wherever they may see fit to build them and whenever they can avail themselves of an opportunity to sell at a profit the securities based upon the supposed construction."¹⁷ This provision of the law serves to protect existing lines from competition. It is also related to Section 15a, for if the public has committed itself to a policy of paying rates which will yield the carriers as a whole a fair return upon the value of their properties, it is obviously in the interest of the public to prevent the construction of unnecessary facilities which only inflate the rate base.

RAILROAD COMBINATION

The Transportation Act of 1920 contained two sets of provisions relating to railroad combinations. Acquisitions of control through lease and stock ownership were covered by one set of provisions, "consolidations" by another set. The term "consolidation" was used in the Act in a restricted sense. It referred to a combination which results in a single corporation where there were two or more corporations before. This construction of the statute was approved by the United States Supreme Court.¹⁸

ACQUISITIONS OF CONTROL

The acquisition of control of one carrier by another through lease or stock ownership or "in any other manner not involving the consolidation of such carriers into a single system for ownership and operation" had to be approved by the Interstate Commerce Commission. The Commission's approval was dependent upon a showing that the acquisition of control would be "in the public interest." The Commission was given

¹⁷ Quoted in MacVeagh, Rogers, *The Transportation Act, 1920* (New York, Henry Holt & Co., 1923), p. 221.

¹⁸ *New York Central Securities Corporation v. United States*, 287 U.S. 12 (1932).

authority to impose such terms and conditions as it found just and reasonable before authorizing an acquisition.

CONSOLIDATION

Much more elaborate were the provisions of the law relating to consolidation. The Interstate Commerce Commission was directed to prepare and adopt a plan for the consolidation of the railway properties of the United States into a limited number of systems. In drawing up this plan the Commission was required to observe certain general principles. These were: (1) competition should be preserved "as fully as possible"; (2) wherever practicable the existing routes and channels of trade and commerce were to be maintained; and (3) subject to the foregoing requirements the systems should be of approximately equal earning power under a uniform level of rates.

The last requirement, although subordinated to the first two, indicated the real purpose of the elaborate consolidation provisions. In the opinion of Congress, the problem of supporting all the railroads from earnings which are fair to the railroads as a whole, but which may be too great or too little for particular roads, was ultimately to be solved by the consolidation of the railroads into a limited number of systems of equal earning power. When this object should be accomplished the Recapture Clause could be repealed and the provisions regarding the division of joint rates would no longer be necessary to marshal earnings in support of the credit of weak lines. The weak lines would have disappeared as separate entities.

The Commission's plan of consolidation was announced in 1929.¹⁹ An extensive revision of the plan for Eastern Territory was made in 1932.²⁰

Thus far we have been referring to a plan of consolidation, not to the procedure in case of actual consolidation. Regarding actual consolidation, the Act provided that two or more railroads might consolidate under three conditions, as follows: (1) the proposed consolidation must be in harmony with the complete plan of consolidation, (2) it must be approved by the Commission as in the public interest, and (3) the stocks and bonds of the company must not exceed the value of the consolidated properties as determined by the Commission under the Valuation Act of 1913.

¹⁹ 159 I.C.C. 522.

²⁰ 185 I.C.C. 403.

When permission was granted railroads to consolidate, or to acquire control of other lines through lease or stock ownership, the carriers were relieved from the operation of the anti-trust laws, and other restrictions imposed by Federal or State law, in so far as might be necessary to enable them to do anything authorized or required by the Commission in its order.

It should be noted that consolidation under the Act was to be voluntary. Carriers could not be compelled to combine according to the plan proposed by the Commission; but, with certain exceptions, they could be prevented from combining in ways that were contrary to it.²¹

The law did not require that combinations through lease or stock ownership should conform to the consolidation plan, but after the promulgation of its plan the Commission took the position that no acquisition of control should be approved that was not in harmony with it.²²

The consolidation provisions of the Act were subsequently modified by the Emergency Transportation Act of 1933²³ and by the Transportation Act of 1940.²⁴

FINANCIAL REGULATION

The Transportation Act of 1920 added Section 20a to the Interstate Commerce Act. This section brought the issuance of securities by railroad companies under the control of the Commission. Stated briefly, this section provided that the approval of the Commission was necessary before a railroad might issue new securities. The Commission was given broad powers in approving or disapproving issues of securities and in attaching terms and conditions.²⁵

Regulation of railroad security issues had been undertaken prior to 1920 by a number of States, but Section 20a gave the Interstate Commerce Commission "exclusive and plenary" jurisdiction over the subject, and a carrier may issue securities approved by the Commission without securing the approval of State authorities.

²¹ The principal exceptions were: (1) consolidations which could be carried out under State laws and which therefore did not require the approval of the Commission, 79 I.C.C. 581 (1923); and (2) combinations through holding companies, since these were not within the jurisdiction of the Commission.

²² See statement of Commissioner Eastman in *Hearings Before the Committee on Interstate & Foreign Commerce. H. of Rep., on Regulation of Holding Companies*. 72d Cong., 1st sess. (1932), p. 59.

²³ See pp. 265-266, *infra*.

²⁴ See p. 270, *infra*.

²⁵ See ch. XXIV.

INTRASTATE RATES

An important provision of the Transportation Act was an amendment to Section 13 of the Interstate Commerce Act to give the Commission power to prescribe intrastate rates when necessary to remove discrimination against interstate commerce. The full significance of this provision is not apparent from a mere consideration of its wording. As interpreted by the Supreme Court of the United States this section empowers the Interstate Commerce Commission to raise purely intrastate rates to the level of interstate rates if the former are not contributing a fair share of the revenue needed to maintain an adequate system of transportation.²⁶ This provision of the law is therefore closely related to Section 15a. If the Commission, under Section 15a, undertakes to adjust rates for the purpose of giving the railroads a fair return, that object cannot be defeated by the maintenance of low intrastate rates by State regulatory authorities. The Federal Government can step in and remove the disparity between interstate and intrastate rates by raising the intrastate rates.

ABANDONMENTS

The Interstate Commerce Commission was given control over railroad abandonments in 1920. The Act provided that "no carrier by railroad subject to this act shall abandon all or any portion of a line of railroad, or the operation thereof, unless and until there shall first have been obtained from the Commission a certificate that the present or future public convenience and necessity permit of such abandonment." Control over abandonment is for the purpose of protecting the communities which are dependent upon particular railroads.²⁷ The centralization of control over railroad abandonments in the hands of the Interstate Commerce Commission seems to have had another and broader objective. It freed the railroads to some extent from unduly burdensome requirements for continued operation of unprofitable branches. Prior to 1920 the States exercised some control over abandonments but were often inclined to look upon abandonment from a purely local point of view. The Interstate Commerce Commission is less likely to protect local interests when unprofitable operation of branch lines

²⁶ *Railroad Commission of Wisconsin v. Chicago, Burlington & Quincy R. R. Co.*, 257 U.S. 563 (1922); *United States v. Louisiana*, 290 U.S. 70 (1933); *Florida v. United States*, 292 U.S. 1 (1934).

²⁷ See ch. XXV.

constitutes a burden upon interstate commerce or a drain upon the resources of a railroad system.

COMPULSORY CONSTRUCTION OF NEW LINES

A novel provision of the Transportation Act was that which empowered the Commission to require a railroad to extend its line or lines. The exercise of this power was conditioned upon two findings that must be made by the Commission: first, that the extension was "reasonably required in the interest of public convenience and necessity," and second, that the expense involved would not "impair the ability of the carrier to perform its duty to the public." Because of a restricted interpretation of this provision by the United States Supreme Court this power is not likely to prove of much importance.²⁸

JOINT USE OF TERMINALS

The Transportation Act gave the Commission power to require the joint use of terminals. The carrier owning terminal facilities may be compelled to share them with other carriers. The owning carrier is entitled, of course, to reasonable compensation for the use of its facilities by another. The compensation is to be agreed upon by the carriers, if possible, but in case of failure to agree the Commission may fix the compensation. Before the Commission may require the joint use of terminals it must find that such use is in the public interest and that it will not impair the ability of the owning carrier to handle its own business.

This power, if exercised, should result in improved service to the public, and should strengthen weaker roads which lack adequate terminals. It may also prevent unnecessary duplication of terminal facilities.

LABOR DISPUTES

It was pointed out earlier in the chapter that controversies over wages and working conditions in the railroad industry were impending at the termination of Federal operation. This situation, coupled with the realization that more adequate machinery was necessary to deal with railroad labor disputes, led Congress to include elaborate provisions in the Act of 1920 for the settlement of such disputes. Among these provisions was one which set up a Railroad Labor Board to decide controversies involving wages which could not be settled in conference between the railroads and their employees, and to decide certain other classes of

²⁸ See ch. XXV.

labor disputes. The Railroad Labor Board was in the nature of a permanent board of arbitration, but its decisions were not binding.²⁹ The Labor Board consisted of nine members, three representing the railroads, three representing the employees, and three, the public. A more detailed description of the Labor Board and of the labor provisions of the Transportation Act of 1920 is unnecessary, since these provisions have been superseded by the Railway Labor Act of 1926.³⁰

MISCELLANEOUS PROVISIONS

A number of miscellaneous provisions in the Transportation Act deserve brief mention.

(1) The Interstate Commerce Commission was enlarged from nine to eleven members.

(2) Section 4 of the Interstate Commerce Act—the Long-and-Short-Haul Clause—was amended in such manner as to restrict the discretionary power of the Commission in granting relief from the prohibitions of the clause. These changes suggested that a less liberal policy should be followed in the future in the granting of relief from the operation of the section.³¹

(3) The Commission, we have already seen, was granted the power to prescribe maximum rates in 1906, and minimum rates, in 1920. But the Act of 1920 also gave the Commission power to prescribe the exact rate to be charged in lieu of a rate found unlawful.

(4) The accounting provisions of the law were changed to the extent of requiring the Interstate Commerce Commission to prescribe the classes of property for which the carriers should set up depreciation reserves, and to determine the amounts thereafter to be charged to operating expenses for depreciation.³²

(5) Interlocking directorates were prohibited. It was made unlawful for any person, after December 31, 1921, to hold the position of officer or director of more than one railroad without special authorization of the Commission upon a showing that neither public nor private interests would be adversely affected thereby.

TRANSITIONAL PROVISIONS

In addition to the provisions of the Transportation Act which relate

²⁹ *Pennsylvania Railroad Co. v. United States Railroad Labor Board*, 261 U.S. 72, 79-80 (1923).

³⁰ See pp. 255-257, *infra*.

³¹ For the details of these changes see ch. XXII.

³² For administration of this section see ch. XXIII.

to the system of railroad regulation, there were a number of provisions designed to aid the railroads in the difficult period of transition from war-time Government operation to operation by their owners. Railroad credit, in particular, needed rehabilitation, and the aid of the Government was necessary. Railroad credit had been weak in the years prior to Federal operation. Although freight rates had been increased 25 per cent during the period of Federal operation, this was insufficient to enable the railroads to pay operating expenses and have an adequate net income. While the railroads were being operated by the Government this did not matter because the carriers were guaranteed a certain net income. But with the support of Government resources withdrawn, as would be the case after the return of the railroads to their owners, railroad credit would collapse unless bolstered up in some way pending an increase in earnings. The measures taken to meet this situation were four in number.

Guaranty of Earnings.—For a period of six months after the termination of Federal control, the railroads were guaranteed a net income equal to that which they would have received for the same length of time under Government control. The guaranty was limited to six months because it was expected that the necessary rate increases could be made within that time. The carriers were not obliged to accept the guaranty. If they did so they had to agree to surrender to the Government all earnings in excess of the sums guaranteed. Some railroads did not accept the guaranty because they hoped to earn more than the amount guaranteed. The guaranty was accepted by 667 carriers, and the net amount paid to them under the provision of the law was about \$527,000,000.³³

Reimbursement of the Deficits of Short Lines.—The second form of aid was granted to the short-line railroads not operated by the Federal Government during the war period and which therefore did not have the benefit of the war-time guaranty. Many of these roads suffered losses due to the policies and practices of the Railroad Administration during the period of Federal control. The law provided that these carriers should be reimbursed for the deficits incurred during that time. In some respects this provision was the equivalent of the guaranty enjoyed by the railroads operated by the Government. Over \$11,000,000 was paid the carriers under this provision of the law.³⁴

Funding of Railroad Debts to the Government.—During the period

³³ Interstate Commerce Commission, *Annual Report*, 1934, p. 42.

³⁴ *Annual Report of the Secretary of the Treasury*, 1945, p. 158.

of Federal control the Government spent large sums of money for improvements on the railroads. Under the terms of the contract between the railroads and the Government, these capital expenditures were to be charged to the railroad companies, since they would be of permanent benefit to them. Provision was made for the deduction of these sums from the amounts to be paid by the Government for the use of the railroads, but it was not possible to deduct all of the capital expenditures without leaving the carriers insufficient earnings for interest and dividend requirements. As a result, the railroads owed the Government large sums of money at the termination of Federal control. The carriers were not in a position to borrow these sums to pay off the Government's claim. The Act of 1920 therefore provided that the Government would fund this indebtedness for a period of not exceeding ten years. This meant that the Government would accept the notes of the carriers for the sums due. These notes were to bear interest at 6 percent. The Government acquired more than \$282,000,000 of railroad obligations under this provision of the law.³⁵

Loans to Railroads.—A fourth form of financial aid consisted of Federal loans to the railroads. Congress set up a revolving fund of \$300,000,000 from which loans were to be made to the carriers for making additions and betterments, or for refunding maturing obligations. Loans were to be made for periods not exceeding fifteen years and were to bear interest at 6 percent. Loans to the amount of \$350,600,000 were made under this provision of the law.³⁶ Early repayment of loans and accumulations of the interest accruing to the fund made possible the loans in excess of the original appropriation.

RESULTS OF THE ACT

As a result of the temporary financial aid to railroads provided by the Transportation Act of 1920 the transition from Government to private operation was made successfully. The constructive policy of the 1920 Act was helpful to the railroads in the ensuing years. Railroad credit improved and the position of the railroads was fairly satisfactory during the decade of the twenties. To be sure some provisions of the Transportation Act did not work out in the manner that had been expected. During this period, also, forces were at work which changed the nature of the transportation problem and defeated some of the

³⁵ *Ibid.*, p. 157.

³⁶ Interstate Commerce Commission, *Annual Report*, 1940, p. 54.

objectives which had been sought through the provisions of the Act of 1920. The onslaught of the depression after 1929 intensified these difficulties, and ushered in a new period in the history of transportation regulation.

In the next chapter the railroad legislation enacted after 1920 will be described.

SELECTED REFERENCES

The best understanding of the railroad problem as it appeared in 1919 and 1920 can be obtained from the *Hearings on Extension of Tenure of Government Control of Railroads*, 65th Cong., 3d sess., and *Hearings on Return of the Railroads to Private Ownership*, 66th Cong., 1st sess. A more convenient presentation of the railroad problem as it then appeared is the collection of papers on railroad legislation, 8 *Proceedings of the Academy of Political Science* 513-774 (1920). An excellent and impartial estimate and criticism of the regulatory system prior to 1920 is in I. L. Sharfman, *The Interstate Commerce Commission*, vol. I (New York, Commonwealth Fund, 1931), ch. II.

The Act of 1920 has been described in many places. See I. L. Sharfman, *The American Railroad Problem* (New York, Century Co., 1921), ch. XI; F. H. Dixon, *Railroads and Government* (New York, Scribner's, 1923), chs. XV-XXII; E. Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. XXV; D. P. Locklin, *Railroad Regulation Since 1920* (New York, McGraw-Hill, 1928), chs. I-IV, VI-XI; Emory R. Johnson, *Government Regulation of Transportation* (New York, Appleton-Century, 1938), pp. 233-240; and Truman C. Bigham, *Transportation: Principles and Problems* (New York, McGraw-Hill, 1946), pp. 171-181. Articles on the subject include: F. Johnston, "The Transportation Act, 1920," 6 *Virginia Law Review* 482 (1920); Edgar J. Rich, "The Transportation Act of 1920," 10 *American Economic Review* 507 (1920); A. Pomerene, "Our Recent Federal Railroad Legislation," 55 *American Law Review* 364 (1921); E. S. Jouett, "Law of Railroad Rate Making," 10 *Virginia Law Review* 618 (1924).

The most complete account of the Railroad Labor Board and its work is H. D. Wolf, *The Railroad Labor Board* (Chicago, Univ. of Chicago Press, 1927). Briefer accounts of the settlement of labor disputes under the Transportation Act are found in H. B. Vanderblue and K. F. Burgess, *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), ch. XXV; S. L. Miller, *Railway Transportation: Principles and Point of View* (Chicago, A. W. Shaw Co., 1924), pp. 861-871; E. Jones, *op. cit.*, pp. 565-588; D. P. Locklin, *op. cit.*, pp. 128-143.

CHAPTER XII

RAILROAD LEGISLATION SINCE 1920

AFTER the amendments of 1920 the Interstate Commerce Act remained substantially unmodified for several years. Changed conditions, however, and the partial failure of the Transportation Act to work out as had been intended brought about amendatory and supplementary legislation which is briefly described in this chapter. This legislation comprises (1) the Hoch-Smith Resolution; (2) the Railway Labor Act; (3) Section 77 of the Bankruptcy Act; (4) the Emergency Transportation Act of 1933; (5) the Railroad Adjustments Act; and (6) the Transportation Act of 1940.

THE HOCH-SMITH RESOLUTION

In 1925 Congress enacted the Hoch-Smith Resolution, the provisions of which seemed to modify long-standing policies of the Interstate Commerce Commission in regulating freight rates. The provisions of the Resolution may be summarized as follows:

(1) A "true policy" of rate making was announced. The Interstate Commerce Commission, in adjusting rates, was directed to consider "the conditions which at any given time prevail in our several industries . . . in so far as it is legally possible to do so, to the end that commodities may freely move."¹

(2) The Interstate Commerce Commission was directed to make a thorough investigation of the rate structure to remove instances of unjust, unreasonable, unjustly discriminatory, and unduly preferential rates.

(3) In making rate adjustments as a result of this investigation, the Commission was directed to give due regard to three factors: (*a*) the "general and comparative levels in market value of the various classes and kinds of commodities as indicated over a reasonable period of years," (*b*) a natural and proper development of the country as a whole, and (*c*) the maintenance of an adequate system of transportation.

The purpose of the Resolution was to help agriculture, which had been in a depressed condition since 1920. There can be no doubt of this

¹ More will be said concerning this principle of rate making in a later chapter. See ch. XVIII.

fact, in view of the special injunction contained in the Resolution to prescribe the lowest possible lawful rates on the products of agriculture affected by the depression. The history of the measure also reveals this purpose. It was sponsored in Congress by the so-called "farm bloc" in the hope that it would help relieve the agricultural distress.²

The Hoch-Smith Resolution was variously interpreted, and it was not clear just what its legal effect would be. At the time of its passage by Congress it appeared to some as a mere political gesture to please the agricultural interests. To others the Resolution seemed to contemplate a revolutionary change in regulatory policy.

It is clear from a study of the Resolution, with its emphasis on the adjustment of rates so that traffic would freely move, that it was intended to justify rate reductions for depressed industries. But since the Resolution did not repeal Section 15a it is to be presumed that there was no intention of depriving the railroads of a "fair return" as a result of such rate reductions. Rather it was intended to bring about a moderate shifting of the transportation burden from the traffic which could not stand high rates to that which could. But there were very strict limits to the extent to which this could be done in view of the principle laid down earlier by the United States Supreme Court that regulatory agencies cannot prescribe specific rates which are less than cost, including in cost an apportionment of the constant and overhead expenses.³ But even greater uncertainty concerning the legal effect of the Resolution resulted from the decision of the United States Supreme Court in *Ann Arbor Railroad Co. v. United States*.⁴ Here the Court held that the Resolution did not "purport to make unlawful any rate which under the existing law is a lawful rate, but on the contrary leaves the validity of the rate to be tested by that law." The provision of the Resolution requiring the lowest possible lawful rates on the products of agriculture was described by the Court as "more in the nature of a hopeful characterization of an object deemed desirable, than of a rule intended to control rate making."

The interpretation placed upon the Hoch-Smith Resolution in the *Ann Arbor* case greatly restricted the possibility of its use to bring about a reduction in the rates on agricultural products. Since the Court had

² The legislative history of the Resolution is told in Wagner, W. H., *The Hoch-Smith Resolution* (Washington, the Author, 1929), ch. II.

³ *Northern Pacific Railway Co. v. North Dakota*, 236 U.S. 585 (1915). For a further discussion of the principle, see ch. XVIII.

⁴ 281 U.S. 658 (1930).

held that the Resolution had not changed existing standards of rate reasonableness, it was clear that the Resolution could not be invoked to lower the rates on commodities merely because of depressed conditions in the industry which produced them. In fact, the Supreme Court's decision was commonly considered practically to have nullified the Resolution.⁵ At times the Interstate Commerce Commission seems to have shared this view.⁶ The Commission, however, has subsequently pointed out that the Resolution still is the law.⁷

The Resolution seems to have had an effect in at least two ways. First, the Commission recognizes that to the extent that there are flexible limits to its discretion it must observe the mandate of the Resolution and prescribe "the lowest possible lawful rates" on the products of agriculture, and on livestock.⁸ Second, since the Resolution gave specific legislative sanction to the principle that "the conditions existing in an industry" should be considered in fixing rates on the products of that industry, the Commission has been inclined to give somewhat greater weight to this factor than it had been wont to do prior to the adoption of the Resolution.⁹

RAILWAY LABOR ACT, 1926

In the previous chapter it was noted that in the Transportation Act of 1920 Congress set up machinery for the settlement of railway labor disputes. These provisions, however, did not long endure and they were replaced by the provisions of the Railway Labor Act of 1926. Substantial modifications in this Act were made in 1934. The provisions of the amended Act may be summarized as follows.

Conferences.—All disputes between a carrier and its employees must be considered, and if possible, decided in conference between representatives of the two parties. The representatives are to be chosen by the respective parties "without interference, influence, or coercion" by the other party. Employees are given the right to organize, and "company unions" and "yellow dog contracts" are definitely prohibited. The ma-

⁵ See note in 17 *Virginia Law Review* 192 (1930); editorial in 45 *Traffic World* 1491 (1930); editorial in 88 *Railway Age* 1405 (1930); and statement of Commissioner Lewis in *Live Stock—Western District Rates*, 176 I.C.C. 159 (1931).

⁶ See *Annual Report*, 1940, p. 16.

⁷ *Increased Railway Rates, Fares, & Charges*, 1942, 248 I.C.C. 545, 611 (1942).

⁸ *Ibid.*

⁹ For other cases in which consideration has been given to the Hoch-Smith Resolution see *General Commodity Rate Increases*, 1937, 223 I.C.C. 657, 746 (1937); *Fifteen Percent Case*, 1937-1938, 226 I.C.C. 41, 77 (1938); *Increased Railway Rates, Fares & Charges*, 1942, 248 I.C.C. 545 (1942).

jority of any craft or class of employees may determine who shall represent that craft or class.

National Railroad Adjustment Board.—Disputes growing out of grievances or out of the interpretation of agreements concerning rates of pay, rules, or working conditions are to be carried to a National Railroad Adjustment Board. This Board is composed of 36 members, 18 selected by the carriers and 18 by the national organizations of employees. It is divided into four divisions, each with jurisdiction over different classes of railroad employment. If any division fails to agree on a decision, it is required to select a neutral referee to sit with the Board until a decision is reached. If the division fails to select a referee, the National Mediation Board is required to appoint one. The decisions of the National Railroad Adjustment Board are final and binding.

National Mediation Board.—Another agency to settle disputes is the National Mediation Board. This Board consists of three members, appointed by the President with the advice and consent of the Senate. The Board has jurisdiction over disputes involving rates of pay or changes in rules and working conditions when such disputes are not settled in conference. The services of the National Mediation Board may be invoked by either party to a dispute, or the Board may on its own motion in cases of emergency make efforts to mediate a dispute. The National Mediation Board is not a board of arbitration. It does not decide disputes. It attempts to work out a settlement which will be acceptable to both parties, and which will be embodied in a signed agreement between the parties. Another function of the National Mediation Board is to settle disputes concerning the organization which is to represent a class of employees. If it seems desirable the Board may conduct an election for the purpose of determining the will of a majority of the employees of any craft or class.

Arbitration.—If the National Mediation Board is unable to bring about a settlement of a controversy, the dispute may be submitted to arbitration. Arbitration, however, is not compulsory. Both sides must agree to arbitrate if the dispute is to be settled in this manner. Arbitration boards may consist of three or six members. One-third of the arbitrators are to be chosen by the carriers, one-third by the employees, and the remaining third by the other arbitrators, or in case of failure of the latter to agree, by the National Mediation Board. The boards of arbitration are not permanent organizations like the old Railroad Labor Board. A board is set up for each dispute to be arbitrated, and goes out of

existence with the completion of its task. When parties to a dispute agree to arbitrate, they must agree to submit to the award of the arbitrators. In other words, the award is binding.

Emergency Board.—If a dispute is not settled by any of the methods described, and if the National Mediation Board has reason to believe that the dispute threatens to interrupt interstate commerce to a degree sufficient to deprive any section of the country of essential transportation service, the Board must notify the President, who may then create an emergency board to investigate the dispute and report its findings to him. The Emergency Board's conclusions are not enforceable, but many of these boards have been created and have proved of great value in bringing about an amicable settlement of disputes.

The procedure for settling railway labor disputes provided by the Railway Labor Act has been instrumental in bringing about a peaceful settlement of thousands of disputes. The National Railroad Adjustment Board, however, has been the object of some criticism.¹⁰ There has been some concern expressed also lest the machinery provided for the settlement of labor disputes on railroads is proving inadequate for the task. Findings of arbitration boards have not, in fact, always been accepted since they have been followed immediately by additional demands on the part of labor. Findings of emergency boards, furthermore, have not always been accepted, and in these cases all the machinery provided by the Act has been of no avail in bringing about a settlement of the disputes.

SECTION 77 OF THE BANKRUPTCY ACT¹¹

In 1933 Congress added Section 77 to the Bankruptcy Act of 1898 as a means of facilitating the financial reorganization of railroad companies. This section was further amended in 1935.

This measure was an outgrowth of the serious financial condition confronting the carriers as a result of the industrial depression which

¹⁰ See Fletcher, R. V., *A Sound Transportation Policy*, an address before the Traffic Club of Philadelphia (mimeographed, 1941); Miller, S. L., *The Railways and Labor: What Price Peace?* (Chicago, Associated Traffic Clubs of America, 1941). For other studies of the National Railroad Adjustment Board see Garrison, Lloyd K., "The National Railroad Adjustment Board: A Unique Administrative Agency," 46 *Yale Law Journal* 567 (1937); Spencer, W. H., *The National Railroad Adjustment Board*, Chicago University, School of Business, Studies in Business Administration, vol. VIII, No. 3 (1938).

¹¹ When this book is being used as a text the instructor may find it desirable to postpone assignment of this section dealing with Section 77 of the Bankruptcy Act, and also the section dealing with Chapter XV of the Bankruptcy Act, and consider them in connection with Chapter XXIV on railroad finance.

began in 1929. The decline in business activity that accompanied the depression greatly reduced the volume of traffic. This situation was intensified by the increasing diversion of traffic to other transportation agencies, chiefly motor carriers. Weekly carloadings, which had ranged from 800,000 to nearly 1,000,000 per week in 1930, had fallen to about 550,000 in 1932. In 1932, railways representing 72 percent of our mileage did not earn their fixed charges. Ordinarily the failure of railroad companies to meet interest payments and other fixed obligations would have thrown them into the hands of receivers pending a revision of their capital structure. Only a few companies, however, were placed in the care of receivers during this period. Receiverships were avoided to a large extent through loans from the Reconstruction Finance Corporation—a Government corporation organized to extend aid to distressed banks and industries—and through loans from the Railroad Credit Corporation—a corporation organized by the railroads to extend loans to defaulting railroads out of funds received from the emergency increase in freight rates granted in 1931.¹²

As the depression continued, it became obvious that these forms of aid could not be extended indefinitely and that some railroads would have to undergo a reorganization of their financial structure. A voluntary reorganization of a corporation could not be accomplished without the consent of substantially all creditors. Since it is practically impossible to obtain such consent, the customary procedure is for a railroad to go into receivership, and to effect a reorganization by a judicial sale of the property to a new corporation in which security holders participate in such manner and on such terms as have been worked out by reorganization managers with the approval of the courts having jurisdiction over the receivership.

PURPOSE OF THE ACT

The procedure and methods of effecting railroad reorganizations have been the subject of criticism for many years, and Section 77 attempts to remove some of these objections. Stated briefly, the Act attempts (1) to insure that the management of the property during receivership will be in the interest of all parties concerned, and not in the interest of a certain group; (2) to provide machinery for working out a reorganization plan which will reduce fixed charges sufficiently, and which will be fair to all classes of creditors and stockholders; (3)

¹² *Fifteen Per Cent Case*, 1931, 178 I.C.C. 539; 179 I.C.C. 215.

to weaken the power of minority interests to block desirable reorganization plans; and (4) to give the Interstate Commerce Commission power to participate in the formulation of the plan, instead of leaving the Commission in the embarrassing position of being obliged to approve or disapprove a plan already worked out by reorganization committees and approved by the security holders. The Commission, under the existing law regulating security issues, had approved of several reorganization plans that left the railroad companies with an unsound financial structure. The Commission did this because the financial structures were somewhat improved by the reorganization and the Commission hesitated to refer the matter back to the reorganization managers and committees for the working out of new plans—thereby undoing the labor of years.¹⁸

The new method of dealing with railroad reorganizations did not completely supersede the old methods. It is still possible to reorganize in the old manner through "equity" procedure, but resort may be had to the new procedure provided by the Bankruptcy Act.

PROVISIONS OF THE ACT

The provisions of Section 77 are detailed and technical, but the main provisions may be summarized as follows:

(1) The first step in the process of effecting a reorganization under the Bankruptcy Act is the filing of a petition, in the appropriate court, which states that the railroad corporation is insolvent or unable to meet its debts as they mature and that a reorganization is desired. The petition may be filed by the railroad corporation or by creditors having claims which aggregate 5 percent or more of the corporation's indebtedness.

(2) Upon approval of the petition the court, after a hearing, must appoint one or more trustees of the debtor corporation's property. This appointment must be approved by the Interstate Commerce Commission. If one of the trustees has been an officer, director, or employee of the corporation, one or more additional trustees who have had no such affiliations are to be appointed.

(3) Within six months after the approval of the petition the debtor corporation is required to file a plan of reorganization with the court and with the Commission. Reorganization plans may also be filed

¹⁸ A striking instance was the Chicago, Milwaukee & St. Paul reorganization. The Commission more or less apologized for approving an unsound reorganization, and four commissioners dissented from the approval of the plan. 131 I.C.C. 673 (1928)

by the trustees, by creditors, by stockholders, or, with the consent of the Commission, by any interested party.

(4) After public hearings on the reorganization plans, the Commission is to render a report approving a plan of reorganization. This plan may be different from that presented by any party. The Commission, before approving any plan or reorganization, must find that it conforms to certain requirements. Among these are the following: the plan must be "compatible with the public interest"; the fixed charges must be within the earning capacity of the carrier; and the plan must be fair and equitable to the various classes of creditors and stockholders.

(5) The plan of reorganization approved by the Commission is submitted to the court for its approval. The court may not approve a plan that has not been approved by the Commission. If the court does not accept the plan approved by the Commission, it may be referred back to the Commission for modification.

(6) After the reorganization plan has been approved by the court, it is submitted for approval to such classes of creditors and stockholders as under the circumstances may be necessary.

(7) After approval by the creditors or stockholders to whom the plan has been referred, the court must confirm the plan. Even if the creditors or stockholders refuse to accept it, the court may under certain conditions confirm the plan.

(8) Upon confirmation of the plan by the court it may be put into effect. The plan is binding upon the corporation, all creditors, and stockholders.

(9) When the plan is carried into effect, the court closes the case and dismisses the trustees.

It was hoped that Section 77 would remove some of the objectionable practices which have accompanied railroad reorganizations in the past. The progress of railroad reorganizations under Section 77, and problems that have arisen in the administration of the section, are discussed in a later chapter.¹⁴

EMERGENCY TRANSPORTATION ACT, 1933

This Act consisted of two parts: Title I, containing measures designed to aid railroads in meeting the situation brought about by the depression; and Title II, containing important amendments to the Interstate Commerce Act.

¹⁴ Ch. XXIV.

EMERGENCY PROVISIONS

The purposes of the temporary or emergency provisions of the Act, found in Title I, may be summarized as follows:

(1) To bring about economies in railroad operation and the elimination of waste and preventable expense through cooperative action. In this connection possible economies through joint use of facilities and the elimination of wasteful competitive practices were specifically mentioned in the Act.

(2) To promote the financial reorganization of railroads so as to reduce fixed charges.

(3) To provide for the investigation and study of other means of improving conditions surrounding transportation in all its forms.

To accomplish these purposes the office of Federal Coordinator of Transportation was created. The Coordinator was to be appointed by the President with the advice and consent of the Senate, or designated by the President from the membership of the Interstate Commerce Commission. President Roosevelt appointed Commissioner Joseph B. Eastman to the office of Federal Coordinator.

The Act also provided for the creation of regional coordinating committees, each consisting of seven railroad representatives. There were three such committees, one for each of the three territorial groups of carriers—eastern, southern, and western.

Provision was also made by the Act for labor committees for each regional group which were to be selected by the railway employees. The Coordinator and the regional coordinating committees were to consult the labor committees before taking any action affecting the interest of the employees.

The function of the regional committees was to devise ways and means for carrying out the economies and elimination of waste which the Act was designed to accomplish. If the regional committees were unable for any reason, legal or otherwise, to carry out these purposes by voluntary action, they were to recommend to the Coordinator that he, by order, require the necessary things to be done.

The Coordinator was authorized to issue such orders if he found them consistent with the public interest, and in furtherance of the purposes of the Act. Orders of the Coordinator were binding in the same manner as orders of the Interstate Commerce Commission, and they were also in like manner subject to court review. Provision was made for a review of orders of the Coordinator by the Interstate Commerce

Commission upon petition of any interested party. Carriers were relieved from the operation of the antitrust laws, and other laws, State and Federal (except such as were for the protection of public health and safety) in so far as might be necessary to enable them to carry out any order of the Coordinator. A fine of not less than \$1,000 nor more than \$20,000 per day was provided for failure to comply with orders of the Coordinator.

The Coordinator was required by the Act to investigate and consider other means for improving transportation conditions in the country. His recommendations were to be submitted to the Commission which, in turn, would submit them with its own comments to the President and to Congress.

A number of additional provisions were written into the emergency sections of the bill before its enactment by Congress which were designed to protect the interests of labor. In addition to the creation of regional labor committees, these provisions were as follows: (1) The number of employees in the service of a carrier could not be reduced, by reason of action taken under this Act, below the number in service during May, 1933, after deducting the number removed by death, retirement, or resignation. The Act also provided that no employee should be deprived of employment such as he had in the month of May, nor be placed in a worse position in regard to compensation by reason of any action taken under this Act. (2) The carriers were to compensate their employees for losses and expenses imposed upon them by transfer of work from one locality to another. The Coordinator was to provide means for determining the amount of compensation in such cases.

One of the stated objects of the Emergency Act was to promote the financial reorganization of carriers. The Act contained only one provision in furtherance of this end. The Interstate Commerce Commission, which has the duty of approving loans to carriers by the Reconstruction Finance Corporation, was directed to approve no such loans if it was of the opinion that the carrier was in need of financial reorganization. An exception to this requirement was made in case of loans for the maintenance or purchase of equipment.

The emergency provisions of the law were temporary measures. They were to terminate one year after their effective date unless extended by Presidential proclamation for one year or a part thereof. They were extended by the President to June 16, 1935, and Congress

by joint resolution extended them to June 16, 1936. On that date the office of Federal Coordinator of Transportation ceased to exist.

RESULTS OF THE EMERGENCY ACT

The emergency provisions of the Act proved somewhat disappointing. The Act was based on the belief that if legal obstacles to cooperative action on the part of the carriers were removed, and if machinery were devised to bring recalcitrant carriers into line with what the others desired, the railroads would come forward with plans for eliminating competitive waste and for reducing expenses through cooperative action. The Act did not work out as desired. For this there were two major reasons. First, the provisions which had been put into the Act to protect railroad labor made coordination projects virtually impossible. Most measures for the joint use of facilities would result in the displacement of labor. It seemed useless to propose coordination projects that could not be put into effect because of the labor provisions of the Act. A second reason for the meager results of the Act was the inability of railroad management to agree on measures to be undertaken. The railroads are competitive, and the executive officers have grown up in the business with this idea of conflicting interests ingrained in them. "Their habit of mind," said the Coordinator, "is intensely individualistic and suspicious of collective action."¹⁵ There is the constant fear that one railroad will obtain an advantage over another in any proposal that is brought forward.

As a result of the latter situation the initiative in seeking methods to reform railroad operations was taken by the Coordinator and not by the Regional Coordinating Committees. The Coordinator, furthermore, could do little more than point out the possibilities in the proposals put forward, since the labor provisions of the Act would prevent the immediate adoption of most of them.

The office of the Federal Coordinator thus became primarily a research organization for the study of the means of improving transportation conditions. A large number of significant reports were issued by the Coordinator's office during the three years of its existence. Other reports, which were completed after the office of Federal Coordinator had ceased to exist, were issued later.

The reports issued were of two distinct types. One type dealt with

¹⁵ Federal Coordinator of Transportation, *Fourth Report*, 74th Cong., 2d sess., House Doc. No. 394 (1936), p. 38.

questions of regulation and legislative action. Four reports of this type were issued.¹⁶ Some of the legislative recommendations of the Coordinator were favorably acted upon by Congress, notably the recommendation that regulation should be extended to motor carriers and to carriers by water.

The second group of reports issued by the Federal Coordinator was technical in nature and dealt with specific methods of eliminating waste, and of reorganizing the service and operating methods of the carriers. Many of these proposals and recommendations were far-reaching and drastic, and would naturally be received with some skepticism. Other proposals were comparatively simple and obvious ways of saving expense through joint action of one sort or another. These reports were prepared by an able staff of persons whose training and experience qualified them to deal with the problems which they undertook to study.¹⁷

These reports of the Federal Coordinator were not received favorably by the industry. In the words of the Coordinator, the first reactions to these reports "were somewhat hostile or at least antagonistic."¹⁸ There was a feeling on the part of the railroads that the reports were unduly critical, and were an attempt to "show up" railroad managements. The failure of Congress to extend the Office of Federal Coordinator of Transportation beyond June 16, 1936, was due to the combined opposition of railroad labor and railroad management.

AMENDMENTS TO THE INTERSTATE COMMERCE ACT

The amendments to the Interstate Commerce Act included in the Emergency Transportation Act of 1933 comprised (1) a series of changes in the law regarding the combination and consolidation of railroads; (2) the enactment of a different Rule of Rate-Making; and (3) the repeal of the Recapture Clause of the Transportation Act of 1920.

¹⁶ *Regulation of Railroads*, 73d Cong., 2d sess., Senate Doc. No. 119 (1934); *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934); *Report of the Federal Coordinator of Transportation*, 1934, 74th Cong., 1st sess., House Doc. No. 89 (1935); *Fourth Report of the Federal Coordinator of Transportation on Transportation Legislation*, 74th Cong., 2d sess., House Doc. No. 394 (1936).

¹⁷ Following are some of the reports in this group: *Freight Traffic Report*; *Merchandise Traffic Report*; *Passenger Traffic Report*; *Report on Freight Car Pooling*; *Container Report*; *Report on Economy Possibilities of Regional Coordination Projects*; *Second Report on Economy Possibilities of Regional Coordination Projects*; *Railway Traffic Organization Report*; *Memorandum on the Application of the Clearing House Principle to the Business of the American Railways*; *Report on Preservative Treatment of Railroad Ties*.

¹⁸ *Fourth Report*, p. 37.

RAILROAD COMBINATIONS

The provisions of the Transportation Act of 1920 which relate to railroad combination had proved unsatisfactory in many respects. Three important weaknesses should be pointed out in order to understand the changes made by the Emergency Transportation Act. (1) The former Act had provided one set of provisions for "consolidations," i.e., combinations which resulted in substituting one corporation for two or more pre-existing corporations, and it provided an entirely different and more lenient set of provisions for acquisitions of control through lease or stock ownership. (2) No provision was made in the older law for control of combinations through holding companies, or combinations effected through minority holdings by a number of individuals or closely related corporations. As a result, a considerable number of combinations had been effected which were not approved by the Commission, and which were directly contrary to the plan of consolidation drawn up by the Commission under the provisions of the Act of 1920. (3) The provision of the Transportation Act requiring the capitalization of a consolidated corporation not to exceed the value of the consolidated properties, as determined under the Valuation Act, imposed difficulties in the way of effecting consolidations since the primary valuations of the Commission could not be brought up to date without a great deal of delay. These difficulties the Emergency Transportation Act of 1933 sought to remedy.

The outstanding changes in the consolidation provisions of the law may be summarized as follows:

(1) All combinations or unifications, regardless of their form, were brought under a uniform rule. Combinations by means of holding companies were specifically included.

(2) The requirement of the Transportation Act of 1920 that the capitalization of the consolidated corporation should not exceed the value of the consolidated properties was eliminated. It is presumed, however, that under the provisions of Section 20a of the Act the Commission has powers adequate to prevent financial abuses in consolidation proceedings.

(3) Approval of unifications by the Commission was conditioned upon two findings: (a) that they would be "in harmony with and in furtherance of the plan of consolidation" drawn up by the Commission under the Act of 1920, and (b) that they would promote the public interest. The Commission, when authorizing a consolidation or unifica-

tion, might impose such terms and conditions as it found to be just and reasonable.

(4) If the Commission should authorize a corporation which was not a carrier to acquire control of any carrier, such corporation became subject to the provisions of Section 20 of the Interstate Commerce Act relating to reports and accounts, and to Section 20a relating to the issuance of new securities, to the extent deemed advisable by the Commission.

THE RULE OF RATE-MAKING

The Rule of Rate-Making provided by Section 15a of the Interstate Commerce Act was repealed, and a new and simplified rule was substituted.¹⁹ The new rule read as follows: "In the exercise of its power to prescribe just and reasonable rates the Commission shall give due consideration, among other factors, to the effect of rates on the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers, under honest, economical, and efficient management, to provide such service."

It will be observed that the Act changed the Rule of Rate-Making in several important respects: (1) It removed the "fair-return-on-fair-value" standard for determining the general level of rates—the standard which had been put into the original Section 15a in 1920. (2) In place of the fair-return-on-fair-value standard is found the more general requirement that in prescribing rates the Commission shall consider the need of the carriers for revenues sufficient to enable them to provide adequate and efficient railway transportation service. (3) Although revenue need remains an important factor in fixing the level of rates, it is no longer the only consideration mentioned in Section 15a. Instead, it becomes one of several factors to be considered. (4) Important among the other factors to be considered in fixing rates is "the effect of rates on the movement of traffic."

REPEAL OF THE RECAPTURE CLAUSE

The Recapture Clause of the Transportation Act of 1920 was repealed retroactively, and the excess earnings paid to the Commission under its provisions were to be distributed among the carriers in proportion to the share each had paid in.

¹⁹ For the old rule see p. 240, *supra*.

RAILROAD ADJUSTMENTS ACT OF 1939

The Railroad Adjustments Act was a measure to facilitate the voluntary adjustment of railroad capital obligations. Congress endeavored to prevent the Act from being used as a means of evading the reorganization procedure provided by Section 77 of the Bankruptcy Act in those instances in which a more thoroughgoing reorganization was desirable. For this reason the procedure provided by the Railroad Adjustments Act is available only for such railroads as the Commission finds are not in need of financial reorganization of the character provided for under Section 77, and whose inability to meet their debts is "reasonably expected to be temporary only." The readjustments of capital obligations resulting from this Act would therefore naturally be less drastic than those resulting from the usual reorganization procedures. They frequently involve only the extension of the maturity dates of bonds, or the reduction of interest on certain existing obligations, although they may also involve the exchanging of securities.

Plans for financial adjustments must be approved by the Interstate Commerce Commission and by a Federal court. The effect of the statute is to force dissenting security holders to submit to a modification of their claims when a substantial majority of the affected security holders have assented to such a proposal, and when the plan has been approved by the Commission and the courts. No plan can be finally approved by the court until it has been accepted by creditors holding more than 75 percent of the aggregate amount of the claims affected, including at least 60 percent of the aggregate amount of the claims of each affected class.

The original Act was to apply only to plans initiated on or before July 31, 1940. In 1942 the Railroad Adjustments Act was re-enacted, with modifications which do not affect the general description of the earlier Act as given above.²⁰ In order to take advantage of the provisions of the 1942 Act, plans of adjustment had to be filed on or before November 1, 1945. Thus, the Railroad Adjustments Act was of a temporary nature.

THE TRANSPORTATION ACT OF 1940

Enactment of the Transportation Act of 1940 followed prolonged consideration of the transportation problem by House and Senate committees in 1939 and 1940. Like the Emergency Transportation Act of

²⁰ The Railroad Adjustments Act is Chapter XV of the Bankruptcy Act.

1933, the 1940 legislation represented an effort to bring some aid to the railroad industry which had experienced serious difficulties during the depression of the thirties. The Act also reflected the changes in the nature of the transportation problem that had come about since 1920. The increasing importance of transportation by highway, by water, and by pipe lines had intensified interagency competition, and had brought to the fore many problems concerning the relations between the different modes of transport, and concerning their respective places in the transportation system of the country.

The provisions of the Act were influenced by two special reports on the transportation problem which were made in 1938. The first of these reports was that of Commissioners Splawn, Eastman, and Mahaffie of the Interstate Commerce Commission, who had been asked by the President to submit recommendations for means of immediate relief for the railroads. This committee, commonly known as the Committee of Three, made its report in April of 1938.²¹ The other report was made by a committee representing railroad management and railroad labor, also appointed by the President to submit recommendations upon the general transportation situation. This committee, known as the Committee of Six, made its report in December of 1938.²²

The Transportation Act of 1940, as finally enacted, was a document of 66 printed pages.²³ Only the more important of its provisions need be mentioned here.

REGULATION OF WATER TRANSPORTATION

One of the most important features of the law was the extension of the Commission's jurisdiction over water carriers, and the setting up of a regulatory system for them which is comparable in many respects to that applicable to railroads and motor carriers. The new sections dealing with water transportation were added as Part III of the Interstate Commerce Act. Part II of the Interstate Commerce Act is the part relating to motor carriers which had been enacted in 1935 as the Motor Carrier Act.²⁴ When Part II was added in 1935, the old Interstate Commerce Act, as amended, which applied principally to railroads, became Part I.²⁵

²¹ *Immediate Relief for Railroads*, 75th Cong., 3d sess., House Doc. No. 583.

²² *Report of Committee Appointed by the President of the United States to Submit Recommendations upon the General Transportation Situation*.

²³ Official print of the law as *Public—No. 785—76th Congress*.

²⁴ For description of Part II of the Act see ch. XXIX.

²⁵ Part I also includes pipe lines.

A description of the regulatory system provided for water carriers is given in a subsequent chapter.²⁶

The enactment of legislation setting up a comprehensive system of regulation for water carriers was not without significance for the railroads. Although it was not the intention of Congress that water carriers should be regulated for the purpose of protecting railroads, it is undoubtedly true that regulation of carriers by water does incidentally benefit railroads to a limited degree.²⁷

NATIONAL TRANSPORTATION POLICY

A declaration of national transportation policy was added to the Interstate Commerce Act by the Transportation Act of 1940. The declaration of policy precedes Parts I, II, and III of the Act, dealing respectively with rail, motor, and water transportation, and lays down a general over-all policy to be observed by the Commission in regulating the various forms of transportation.

The National Transportation Policy reads as follows:

It is hereby declared to be the national transportation policy of the Congress to provide for fair and impartial regulation of all modes of transportation subject to the provisions of the Act, so administered as to recognize and preserve the inherent advantages of each; to promote safe, adequate, economical, and efficient service and foster sound economic conditions in transportation and among the several carriers; to encourage the establishment and maintenance of reasonable charges for transportation services, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices; to cooperate with the several States and the duly authorized officials thereof; and to encourage fair wages and equitable working conditions;—all to the end of developing, coordinating, and preserving a national transportation system by water, highway, and rail, as well as other means, adequate to meet the needs of the commerce of the United States, of the Postal Service, and of the national defense. All of the provisions of this Act shall be administered and enforced with a view to carrying out the above declaration of policy.

Certain language of the declaration of policy will be considered more fully in later chapters. It is sufficient to note at this point that Congress has visualized an adequate transportation system as embracing all three of the major forms of transportation—rail, highway, and water—and that it has implicitly recognized that each has its inherent advantages which should be recognized and preserved.

²⁶ Ch. XXXI.

²⁷ I.C.C., *Annual Report*, 1940, p. 15.

RAILROAD CONSOLIDATION

Important changes in the provisions of the Interstate Commerce Act relating to railroad consolidations and other forms of railroad unification were made by the 1940 legislation.

First, the requirement that railroad consolidations or unifications should conform to a Commission-made plan of consolidation, drawn up in advance, was eliminated. The requirement that consolidations must conform to such a plan had been put into the Act in 1920.²⁸ It had come to be felt that this requirement was a hindrance to railroad consolidation, since the carriers would not voluntarily consolidate according to the Commission's plan, or in accordance with any plan that the Commission could draw up in compliance with the standards laid down in the Act. Removal of this requirement from the Act, however, does not mean that consolidations may take place without the Commission's approval. A proposed consolidation or unification must be found "consistent with the public interest."

A second change in the law relating to consolidations was the enumeration of certain factors which should be taken into consideration in the determination of whether a proposed consolidation or unification was in the public interest. These factors are: "(1) the effect of the proposed transaction upon adequate transportation service to the public; (2) the effect upon the public interest of the inclusion, or failure to include, other railroads in the territory involved in the proposed transaction; (3) the total fixed charges resulting from the proposed transaction; and (4) the interest of the carrier employees affected."

A third change in the consolidation provisions of the law was the addition of provisions designed to protect railroad labor affected by consolidations. The Commission was directed to require as a condition of its approval of a consolidation or unification that there be a "fair and equitable arrangement" to protect the interests of railroad employees affected. The Act further required that the Commission should include terms and conditions in its order of approval which would provide that for four years the affected employees should not be placed in a worse position with respect to their employment as a result of the consolidation or unification.²⁹

²⁸ P. 245, *supra*.

²⁹ An employee who had not been employed by the carrier for four years was entitled to protection only for a period equal to the length of his employment.

AMENDMENT OF SECTION 15a

The provision in Section 15a of the Interstate Commerce Act which requires that in prescribing rates the Commission shall give due consideration to the "effect of rates on the movement of traffic" was amended by confining such consideration to the movement of traffic "by the carrier or carriers for which the rates are prescribed." The purpose of this modification of Section 15a was to prevent the Commission from prescribing railroad rates which were designed to protect the traffic of another type of carrier. A similar provision is found in corresponding sections of Parts II and III of the Act. The Commission has interpreted the provisions as meaning that "no carrier should be required to maintain rates which would be unreasonable, judged by other standards, for the purpose of protecting the traffic of a competitor."³⁰

BURDEN OF PROOF

The Act of 1940 placed the burden of proof upon the railroad in any proceeding involving a change in rates. The law prior to 1940 had placed the burden of proof upon the carrier when an increase in rates was proposed, but not when a reduction was proposed. This rather technical provision of the Act is important since it strengthens the hand of the Commission in controlling competitive rate reductions.

LAND-GRANT RATES

The Transportation Act of 1940 released the land-grant railroads from their obligation to transport mail and government traffic, other than military and naval property and personnel, at reduced rates. The obligation to transport government property and mail at reduced rates dates back to the land grants that were made to railroads between 1850 and 1871.³¹ Military or naval property, and also personnel when on official duty, were still carried at reduced rates by the land-grant railroads. Releasing the land-grant railroads of their obligation to transport nonmilitary and nonnaval traffic at reduced rates, however, was expected at the time to add about \$7,000,000 annually to the revenues of the railroads.³²

³⁰ *Seatrains Lines, Inc. v. Akron, Canton & Youngstown Ry. Co.*, 243 I.C.C. 199, 214 (1940).

³¹ Pp. 110-114, *supra*.

³² In 1945 Congress relieved the land-grant railroads of the obligation to transport military and naval personnel and property at reduced rates. This law became effective October 1, 1946.

BOARD OF INVESTIGATION AND RESEARCH

Recognition by Congress that the transportation problem was not solved by the enactment of the 1940 legislation is found in the provision for the creation of a three-man board, to be known as the Board of Investigation and Research, to investigate transportation problems and to report their findings and recommendations to the President and to Congress.

The Act specifically directed the Board to make studies of three highly controversial matters: (1) "the relative economy and fitness" of rail, motor, and water carriers, with the view of determining the service for which each was especially fitted or unfitted; (2) the so-called subsidy question, or the extent to which rights-of-way or other transportation facilities have been provided with public funds for the use of each of the three types of carriers without adequate compensation therefor; and (3) the extent to which taxes are imposed upon the three modes of transport. In addition to these specific inquiries, the Board was authorized to investigate any other matters relating to transportation which it might deem important to investigate for the improvement of transportation conditions or to further the national transportation policy declared in the Interstate Commerce Act.

The Board was of a temporary nature, since its life was to be for only two years unless extended by proclamation of the President. The Board was not organized until nearly a year after the Act was passed, hence it had little time to carry on extensive investigations unless its life was extended. The President extended its life for the additional two years permitted by the statute, but at the expiration of this period, on September 18, 1944, the Board's existence was terminated.³³

RECAPITULATION

The last three chapters have described the evolution of the present

³³ On the last day of its existence the Board transmitted 13 reports to Congress. Some of these which have been published are: *Federal Regulatory Restrictions upon Motor and Water Carriers*, 79th Cong., 1st sess., Senate Doc., No. 78 (1944); *Technological Trends in Transportation*, 79th Cong., 1st sess., Senate Doc. No. 76 (1945); *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944); *Comparison of Rail, Motor, and Water Carrier Costs*, 79th Cong., 1st sess., Senate Doc. No. 84 (1944); *Carrier Taxation*, 79th Cong., 1st sess., House Doc. No. 160 (1944). Earlier reports of the Board which were published are: *Report on Interterritorial Freight Rates*, 78th Cong., 1st sess., House Doc. No. 303 (1945); *Report on Rate-Making and Rate-Publishing Procedures of Railroad, Motor, and Water Carriers*, 78th Cong., 1st sess., House Doc. No. 363 (1944); *Hourly Remuneration Rates by Occupations in the Transportation Industry*, 78th Cong., 2d sess., House Doc. No. 623 (1944); *Practices and Procedures of Governmental Control*, 78th Cong., 2d sess., House Doc. No. 678 (1944).

system of railroad regulation. Six rather distinct periods may be recognized in this development. These periods are as follows:³⁴

(1) *The Initial Period, 1887-1897.*—This was the period immediately following the enactment of the Act to Regulate Commerce. During this period the machinery of regulation was set up, and the enforcement of the Act undertaken with a fair degree of success.

(2) *The Doldrums Period, 1897-1906.*—This period followed a series of adverse decisions by the Supreme Court of the United States, which severely weakened the Commission and largely destroyed the effectiveness of the original Act. The most important of these decisions were the Alabama Midland Case³⁵ and the Maximum Freight Rate Case.³⁶

(3) *Rehabilitation and Extension of Regulation, 1906-1917.*—The enactment of the Hepburn Act of 1906 brought an end to the Doldrums Period and made regulation effective once more. The Act was further strengthened by the Mann-Elkins Act of 1910, and other legislation. This period was brought to a close by World War I and the Government's decision late in 1917 to take over the operation of the railroads.

(4) *The War Interlude, 1917-1920.*—During this period Government operation of the railroads took the place of our traditional policy of private operation under Government regulation. The powers of the Interstate Commerce Commission were somewhat restricted during this time although the Commission had many extra duties to perform that grew out of the new relations between the Government and the railroad corporations.

(5) *The Period of Affirmative Control, 1920-1933.*—Following the return of the railroads to their owners in 1920 and the enactment of the Transportation Act of 1920, a distinctly new period was ushered in. This period was characterized by a less restrictive approach in regulation, and by the adoption of the affirmative policy of seeking to build up an adequate national transportation system. The policy of the Government was distinctly constructive in nature.

(6) *The Period of Railroad Readjustment and Transport Coordination, 1933 to Date.*—The rise of new forms of transport—motor carriers,

³⁴ This classification, with some changes in phraseology, is taken from Aitchison, Clyde B., "The Evolution of the Interstate Commerce Act: 1887-1937," 5 *George Washington Law Review* 289 (1937).

³⁵ See p. 229, *supra*.

³⁶ P. 224, *supra*.

pipe lines, and air carriers—together with a revival of water transportation, has brought us to a new period of regulation. The Emergency Transportation Act of 1933 and the Transportation Act of 1940 reflect the new problems which have arisen. This period of regulation has been characterized by an extension of control over motor carriers and water carriers, and by some attempts to organize the railroad industry on more efficient lines, and by efforts to bring about greater coordination of the various forms of transportation. It is likely that additional legislation will be enacted in an effort to solve the problems which this period has brought to the fore.

SOME OBSERVATIONS ON THE DEVELOPMENT OF REGULATION

In examining the details of the various regulatory measures that have been enacted from time to time, attention may have been diverted from certain general but significant facts which the story reveals.

In the first place it is apparent that the regulatory system did not spring into existence full-blown. It is the result of an evolutionary process extending over 50 years or more. Second, each enlargement of the Commission's powers and each extension of its jurisdiction have been in response to well-defined needs. The provisions of the various acts have been designed to remedy specific abuses or to attain specific objectives considered desirable. Third, the transportation problem has been an ever changing problem. New legislation has been required as new situations developed or new problems arose. There is every reason to believe that this will continue to be the case, and that one cannot look for regulation to assume a final or definitive form. Fourth, where the Interstate Commerce Act has proved to be weak or ineffective, Congress has been disposed to strengthen it in order that its objectives might be accomplished. There has been no tendency to turn back or abandon the broader objectives of the Act. Finally, some statutory provisions have proved unwise, or unworkable, or, because of changed conditions, have been deemed no longer useful. Congress has not hesitated to amend or even to eliminate such provisions.

SELECTED REFERENCES

Railroad legislation since 1920 is summarized in Truman C. Bigham, *Transportation: Principles and Problems* (New York, McGraw-Hill, 1946), pp. 181-194.

The most detailed study of the Hoch-Smith Resolution is W. H. Wagner, *The Hoch-Smith Resolution* (Washington, the author, 1929). For shorter dis-

cussions, see D. P. Locklin, *Railroad Regulation Since 1920* (New York, McGraw-Hill, 1928), ch. V, or by the same writer, "Freight Rates and the Hoch-Smith Resolution," 3 *Journal of Land & Public Utility Economics* 361 (1927); G. H. Robinson, "The Hoch-Smith Resolution and the Future of the Interstate Commerce Commission," 42 *Harvard Law Review* 610 (1929); Kenneth F. Burgess, "Conflict in Legislation Respecting Railroad Rates," 7 *Harvard Business Review* 423, and 8 *ibid.* 24 (1929); H. C. Mansfield, "Hoch-Smith Resolution and the Consideration of Commercial Conditions in Rate Fixing," 16 *Cornell Law Quarterly* 339 (1931).

On the Railway Labor Act of 1926, as amended, see Lloyd K. Garrison, "The National Railroad Adjustment Board: A Unique Administrative Agency," 46 *Yale Law Journal* 567 (1937); E. B. McNatt, "The Amended Railway Labor Act," 5 *Southern Economic Journal* 179 (1938); Wm. H. Spencer, *The National Railroad Adjustment Board*, Chicago Univ. Studies in Business Administration, vol. VIII, No. 3 (1938); U.S. National Mediation Board, *The Railway Labor Act and the National Mediation Board* (Washington, Government Printing Office, 1940).

For a brief description of Section 77 of the Bankruptcy Act see Interstate Commerce Commission, *Annual Report*, 1933, pp. 15-16, and *Annual Report*, 1935, pp. 20-22. A good discussion of the objects and purposes of Section 77 is in a letter of the Chairman of the Legislative Committee of the Interstate Commerce Commission to Senator Hastings on the proposed amendment to the Bankruptcy Law (mimeographed, 1933). For references on critical discussions of Section 77 and of its administration, see references at the end of ch. XXIV.

The Emergency Act of 1933 is discussed in R. W. Harbeson, "The Emergency Railroad Transportation Act of 1933," 42 *Journal of Political Economy* 106 (1934). For discussions of the work of the Federal Coordinator see Wm. J. Cunningham, "The Federal Coordinator's Contribution to Railroad Coordination," 15 *Harvard Business Review* 265 (1937); and S. Earnshaw, "The Federal Coordinator of Transportation," 26 *Kentucky Law Journal* 182 and 298 (1938).

There is a brief description of the Railroad Adjustments Act in Interstate Commerce Commission, *Annual Report*, 1939, pp. 65-67, and also *Annual Report*, 1942, pp. 51-52.

The Transportation Act of 1940 is described in Ralph L. Dewey, "The Transportation Act of 1940," 31 *American Economic Review* 15 (1941); R. W. Harbeson, "The Transportation Act of 1940," 17 *Journal of Land & Public Utility Economics* 291 (1941); Stanley H. Smith, "The New Transportation Act," 66 *Traffic World* 607 (1940). The Act is also summarized in Interstate Commerce Commission, *Annual Report*, 1940, pp. 1-15.

The text of the complete Interstate Commerce Act is published in several different forms. One of the most convenient is *The Interstate Commerce Act and Related Acts*, published by the Superintendent of Documents, and frequently revised and brought up to date. For annotations to the Act, paragraph by paragraph, see *Interstate Commerce Acts Annotated* in 12 volumes (Washington, Government Printing Office, 1930-1945). Supplementary volumes are added to this compilation from time to time.

CHAPTER XIII

THE AGENCIES OF CONTROL

THE regulation of railroad transportation is carried out through various governmental agencies. The Congress and State legislatures, the Interstate Commerce Commission and forty-seven¹ State commissions, State and Federal courts, and, to a certain extent, the executive branches of the State and Federal governments partake in the control. It is the purpose of this chapter to explain the part played by each type of agency mentioned.

DIVISION OF AUTHORITY BETWEEN STATE AND FEDERAL GOVERNMENTS

To define the bounds between State and Federal authority is our first task. This problem has been of particular importance in the United States because of the federal character of our government. The States existed before the Federal Government. The Federal Government was created by the States, and its powers are enumerated in the Constitution of the United States. It only has the powers specifically delegated to it, and such others as are "necessary and proper" for carrying out the delegated powers. Among the powers delegated to the Federal Government is the power "to regulate commerce with foreign nations, and among the several States, and with the Indian tribes."² This provision of the Constitution is known as the "Commerce Clause." The power to regulate commerce which is not interstate or foreign, that is, intrastate commerce, is reserved to the States, since by the Tenth Amendment the "powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." These two provisions of the Constitution are the basis for the common statement that the Federal Government regulates interstate and foreign commerce, and the States regulate intrastate commerce.

Railroads are interstate in nature. Few operate entirely within the boundaries of a single State. And those railroads which do operate within the confines of a single State are almost always engaged in interstate business and are therefore subject to Federal laws. Interstate rail-

¹ Delaware has no commission.

² Article I, Section 8.

roads are engaged in some purely intrastate commerce, and in some measure, therefore, come under the control of the States in which they operate. It can readily be seen, therefore, that any attempt to regulate railroads in the United States would give rise to questions of the extent of Federal and State powers respectively, and to conflicts of authority between State and Federal agencies. Many cases involving this conflict have come before the United States Supreme Court.

In attempting to draw the line between State and Federal power the courts have recognized three fields of jurisdiction: (1) the field in which the Federal power is exclusive; (2) the field in which the State power is exclusive; and (3) the field in which the States and the Federal Government have "concurrent" power. The third field requires a word of explanation, for the terminology is inapt. By concurrent powers we do not mean that both State and Federal regulation can operate at the same time. Either may act, but if both legislate on the same subject matter, the Federal law supersedes the State law. Only in the absence of Federal legislation can the State act in this field.

In railroad regulation the most important example of exclusive Federal power is the power to regulate rates on interstate shipments. The Federal Government, and it alone, can regulate these rates. Such was the decision of the United States Supreme Court in the *Wabash* case.³ It has likewise been held that only the Federal Government has the power to require certificates of convenience and necessity of persons desiring to operate busses or trucks as common carriers in interstate commerce except as such certification may be incidental to the enforcement of valid State regulations.⁴

An example of a power which is vested in State authorities is that of regulating rates on intrastate traffic. The States and not the Federal Government have control over intrastate rates. The Interstate Commerce Commission does not, and could not, have jurisdiction to pass on the reasonableness *per se* of purely intrastate rates.⁵ The power of the States over intrastate rates is somewhat restricted, as will be developed more fully later, when those rates interfere with the regulation of interstate commerce by the Federal Government. Control over the abandonment of intrastate operations of railroads located entirely within the

³ 118 U.S. 557 (1886), described on pp. 215-216, *supra*, and pp. 280-281, *infra*.

⁴ *Buck v. Kyukendall*, 267 U.S. 307 (1925); *Bush v. Maloy*, 267 U.S. 317 (1925).

⁵ *Arkansas R. R. Commission v. Chicago, Rock Island & Pacific R. R. Co.*, 274 U.S. 597; *Florida v. United States*, 282 U.S. 194 (1931).

boundaries of a State is a matter within the jurisdiction of the States.⁶ The Supreme Court has held that the Federal law relating to control of abandonments by the Interstate Commerce Commission might be unconstitutional if it were interpreted in such a way as to deprive the States of authority over abandonments which were wholly intrastate.⁷

The field within which Federal and State governments exercise concurrent powers includes many phases of railroad regulation. State laws affecting interstate commerce which fall within the field of concurrent jurisdiction are of two sorts: (1) those in which the subject matter is local in character and permits or requires diversity of treatment, and (2) those which represent a valid exercise by the State of its police power and which only incidentally affect interstate commerce. In the first group is found regulation of ferries between points in different States. Regulation of these ferries by a State is a regulation of interstate commerce, but it has been upheld because of the local character of the problem.⁸ In like manner, quarantine regulations of a State have been upheld, partially on this ground,⁹ and so have State pilotage fees.¹⁰ State regulation of the rates at which natural gas is sold to consumers, even though it is transported by pipe line from without the State, has been held valid, because of the local nature of the problem.¹¹

The second group consists of regulations held valid because their effect upon interstate commerce is only incidental. Such regulations are not regulations of interstate commerce as such, and they are uniformly upheld unless they impose burdens upon interstate commerce.¹² State control over grade crossings has been upheld on this ground,¹³ and so has regulation of the size of train crews.¹⁴ Similarly, State legislation is valid that limits the weight of motor trucks, even when applied to vehicles engaged in interstate commerce, for such limitations represent an attempt

⁶ See ch. XXV.

⁷ See *Texas v. Eastern Texas R. R. Co.*, 258 U.S. 204 (1922), pp. 216-218.

⁸ See *Port Richmond & Bergen Point Ferry Co. v. Board of Chosen Freeholders of Hudson County*, 234 U.S. 317 (1914).

⁹ *Morgan v. Louisiana*, 118 U.S. 455 (1886).

¹⁰ *Cooley v. Board of Wardens of Port of Philadelphia*, 12 Howard 298 (1851).

¹¹ *Pennsylvania Gas Co. v. Public Service Commission*, 252 U.S. 23 (1920).

¹² An Arizona statute limiting train lengths, although defended as a safety measure, was held invalid because it was obstructive to interstate train operation and went beyond what was plainly essential for safety. *Southern Pacific Co. v. Arizona*, 325 U.S. 761 (1945).

¹³ *New York & New England R. R. Co. v. Bristol*, 151 U.S. 556 (1894), and *Missouri Pacific Ry. Co. v. Omaha*, 235 U.S. 121 (1914).

¹⁴ *Chicago, Rock Island & Pacific Ry. Co. v. Arkansas*, 219 U.S. 453 (1911).

on the part of the State to protect its highways.¹⁵ Restrictions of this sort must be reasonable and must not discriminate against vehicles used in interstate commerce. Other restrictions are imposed by the States upon motor-vehicle operators, either in an attempt to preserve the highways, or to protect the health, safety, and comfort of the citizens of the State.¹⁶

But in the field of concurrent powers the authority of the State is dependent upon nonaction by the Federal Government over the same subject matter. When the Federal Government steps in, the States must withdraw. In this manner State regulation of many railroad activities has been supplanted by Federal regulation. Federal regulation of railroad accounts precludes action by the States in the same sphere. Regulation of security issues was undertaken by the Federal Government in 1920, and this law supersedes all State regulations on the subject. The consolidation of railroads has been largely brought under the control of the Federal Government. When the approval of the Interstate Commerce Commission is secured for a particular consolidation or acquisition of control, the combination may be effected, State laws to the contrary notwithstanding. In the field of safety legislation Federal laws have largely taken the place of State laws.

CONFLICT OVER CONTROL OF RATES

The conflict between the State and Federal governments in the matter of rate regulation has resulted in a series of Supreme Court decisions which mark a gradual process of evolution, enlarging the authority of the Federal Government and restricting that of the States.

THE GRANGER CASES, 1877

The controversy first came before the Supreme Court of the United States in the Granger cases, wherein it was argued that the Granger laws were contrary to the Commerce Clause of the Constitution since they were to some extent a regulation of interstate commerce. The Iowa statute, which was attacked in *Chicago, Burlington & Quincy Railroad Co. v. Iowa*,¹⁷ prescribed maximum rates on traffic moving within the State. The maxima applied even on shipments that moved to points outside the State or which came from beyond the State. A somewhat

¹⁵ *Morris v. Doby*, 274 U.S. 135 (1927); *South Carolina Highway Department v. Barnwell Bros., Inc.*, 303 U.S. 177 (1938).

¹⁶ See *Hendrick v. Maryland*, 235 U.S. 610 (1915).

¹⁷ 94 U.S. 155 (1877).

similar system of regulation was involved in *Peik v. Chicago & North Western Railway Co.*¹⁸ The application of these rates to interstate traffic was clearly a regulation of interstate commerce. The Supreme Court, however, found this not inconsistent with the Commerce Clause; “. . . until Congress acts,” said the Court in the Iowa case, “the State must be permitted to adopt such rules and regulations as may be necessary for the promotion of the general welfare of the people within its own jurisdiction, even though in so doing those without may be indirectly affected.”¹⁹ And in the *Peik* case the Court said: “. . . until Congress undertakes to legislate for those who are without the State, Wisconsin may provide for those within, even though it may indirectly affect those without.”²⁰

THE WABASH CASE, 1886

The next development in this evolutionary process came with the *Wabash* decision in 1886.²¹ This case has already been mentioned because of its relation to the enactment of the Act to Regulate Commerce in 1887.²² In this decision the Supreme Court held that rates on interstate traffic could be regulated only by the Federal Government. Even in the absence of Federal regulation, the States were held to be without authority over rates on interstate commerce. In other words, the regulation of rates on interstate traffic is not within the field of concurrent jurisdiction. The gist of the Court's reasoning is found in the following statement: “It cannot be too strongly insisted upon that the right of continuous transportation from one end of the country to the other is essential in modern times to that freedom of commerce from the restraints which the State might choose to impose upon it, that the commerce clause was intended to secure. This clause, giving to Congress the power to regulate commerce among the States and with foreign nations . . . was among the most important of the subjects which prompted the formation of the Constitution. And it would be a very feeble and almost useless provision, but poorly adapted to secure the entire freedom of commerce among the States which was deemed essential to a more perfect union by the framers of the Constitution, if, at every stage of the transportation of goods and chattels through the

¹⁸ 94 U.S. 164 (1877).

¹⁹ 94 U.S. 155, 163.

²⁰ 94 U.S. 164, 178.

²¹ 118 U.S. 557.

²² Pp. 215-216, *supra*.

country, the State within whose limits a part of this transportation must be done could impose regulations concerning the price, compensation, or taxation, or any other restrictive regulation interfering with and seriously embarrassing this commerce."²³

THE MINNESOTA AND THE SHREVEPORT CASES

The next step in the extension of Federal authority came as a result of the decisions in the Minnesota Rate Cases and the Shreveport Cases in 1913 and 1914, respectively. The principle established by these cases was that the Federal Government might change a purely intrastate rate in order to remove unjust discrimination caused by a low intrastate rate which preferred points within the State and discriminated against points without.

The Minnesota Rate Cases involved the validity of certain intrastate rates prescribed by the State of Minnesota. It was contended that these rates, when applied to places on or near the boundaries of the State, preferred such points and discriminated against points outside the State which took higher interstate rates. The Supreme Court held that the State rates could not for this reason be found invalid since the Federal Government, in the exercise of its authority over interstate rates, had not found the rate adjustment discriminatory. The decision implied, however, that if the Federal Government should find the rates discriminatory, the State rates would have to yield. This ruling subordinated State control over intrastate rates to Federal regulation of interstate rates whenever the two conflict. "There is no room in our scheme of government for the assertion of state power in hostility to the authorized exercise of Federal power."²⁴

In the Shreveport Cases the Federal Government had found a rate adjustment unduly prejudicial to Shreveport, Louisiana, and preferential to Dallas and Houston, Texas. The State of Texas had maintained lower rates from Dallas and Houston eastward toward Shreveport than the interstate rates from Shreveport westward into Texas. The Supreme Court held that the Interstate Commerce Commission could require the removal of the discrimination by a change in the intrastate rates which were so low as to cause the discrimination. The power of the State to prescribe intrastate rates cannot be exercised in such a way as to defeat the legitimate exercise of Federal control over interstate commerce.

²³ 118 U.S. 557, 572-573.

²⁴ 230 U.S. 352, 399.

"Wherever the interstate and intrastate transactions of carriers are so related that the government of the one involves the control of the other, it is Congress, and not the State, that is entitled to prescribe the final and dominant rule, for otherwise Congress would be denied the exercise of its constitutional authority and the State, and not the Nation, would be supreme within the national field."²⁵ In this case, to have given the State the right to maintain the preferentially low rates would have defeated the enforcement of Section 3 of the Act to Regulate Commerce. State authority has to yield for "a State may not authorize the carrier to do that which Congress is entitled to forbid and has forbidden."²⁶

THE WISCONSIN PASSENGER FARES CASE, 1922

The final step in the growth of Federal control over rates was taken in the Wisconsin Passenger Fares Case.²⁷ This case involved an interpretation of a change made in the Interstate Commerce Act in 1920 which has already been referred to.²⁸ The decision recognized that the Federal Government has broader powers over intrastate rates than were established by the Shreveport Cases. It recognized that the Interstate Commerce Commission has the power to bring the level of intrastate rates as a whole up to the level of interstate rates, a power not possessed by the Commission before 1920.²⁹ Power to raise the level of intrastate rates is, as we have seen, definitely related to Section 15a of the Interstate Commerce Act. The constitutionality of the power rests upon the same reasoning as that used in the Shreveport Case. State control over intrastate rates cannot be used to defeat Federal regulation of interstate commerce, in this case, the regulation of the rate level under Section 15a.

A mere difference in the levels of interstate and intrastate rates, however, is not sufficient to justify Federal action to bring intrastate rate levels to interstate levels. There must be clear evidence of the inadequacy of revenues from intrastate traffic.³⁰

²⁵ 234 U.S. 342, 351-352.

²⁶ *Ibid.*, p. 354.

²⁷ 257 U.S. 563.

²⁸ P. 247, *supra*.

²⁹ *Illinois Central Ry. Co. v. State Public Utilities Commission of Illinois*, 245 U.S. 493 (1918).

³⁰ *North Carolina v. United States*, 325 U.S. 507 (1945).

DIVISION OF POWER BETWEEN COMMISSIONS AND THE VARIOUS
BRANCHES OF THE GOVERNMENT

We have discussed the division of authority between the Federal and State governments in the regulation of carriers. We now turn to a discussion of the respective functions of legislatures, commissions, courts, and the executive branch of the government in the scheme of regulation. Illustrations will be drawn largely from the Federal Government, but a similar system prevails in most of the States. In the regulation of railroads commissions occupy the center of the stage. Every State in the Union, except Delaware, has some sort of a commission, usually called a railroad or public utility commission. The Interstate Commerce Commission is often rated second only to the Supreme Court of the United States in importance among Government bodies. The Interstate Commerce Commission, like most regulatory commissions, is an "independent" agency of the Government, that is, it is not attached to any of the regular departments of the executive branch of the Government.

RELATION OF COMMISSIONS TO THE LEGISLATIVE AUTHORITY

The regulatory commission is an administrative body, created by the legislative authority, and dependent upon the latter for its powers. It may exercise only such powers as the legislative authority confers upon it. Commissions exercise legislative, executive, and judicial powers. When aiding in the enforcement of the statutes a commission acts in an executive capacity. When it determines the reasonableness of a rate on past shipments and awards reparations it exercises judicial powers. When it prescribes a rate for the future it acts in a legislative capacity.

Our regulatory laws are couched in very general terms. Early attempts to prescribe rates by statute, as we have seen, were not successful.³¹ Rates must be reasonable and just, but the statute does not and cannot specify what constitutes a reasonable or an unreasonable rate. The law prohibits undue preference and advantage. But when is a preference undue and when is it not? When is a discrimination just and hence lawful, and when is it unjust and hence unlawful? Railroads are required to provide adequate facilities, but the statute attempts no definition of what constitutes adequate facilities. It is the inclusion of such general language in the statutes, more than any other fact, that makes the commission form of regulation necessary. Regulation through commissions, says Freund, is based largely on "the inability of the legis-

³¹ See pp. 206-207, *supra*.

lature to formulate standards sufficiently definite for private guidance." "This inability," he adds, "may be due either to the inherent inapplicability of uniform standards to varying individual cases or to the temporary failure to discover such principles."³² The words "just" or "unjust" appear more than 40 times in Part I of the Interstate Commerce Act alone, and the words "reasonable" or "unreasonable" over 70 times. The exercise of discretion or judgment is required in the administration of provisions of the Act although the words "just," "reasonable," or "adequate" may not be used. The law cannot specify all the circumstances under which an issue of securities is objectionable or unobjectionable. It therefore vests the Interstate Commerce Commission with broad discretionary powers in determining whether particular issues are "compatible with the public interest" or not. Neither can hard and fast rules be laid down to govern the acquisition of control of one carrier by another. For this reason the Commission must determine whether or not a proposed acquisition of control is "consistent with the public interest." The "public interest" standard, in one form or another, appears more than 20 times in Part I of the Act. Even when the law is specific in its prohibitions, as in the Long-and-Short-Haul Clause, or in the anti-pooling provisions, exceptions are permitted, because it is recognized that exceptions may be justifiable. The Commission is vested with authority to determine whether exceptions may be permitted or not. As a general thing, then, Congress lays down rather broad principles of regulation, and the Commission applies these principles to the many specific instances that arise.

CONSTITUTIONALITY OF COMMISSION REGULATION

When a commission prescribes a rate or rule of conduct for the future it is exercising a legislative power. To grant a commission these powers might seem to be contrary to the principle of constitutional law that the legislative power may not be delegated to others. Since the Constitution vests the legislative power in Congress, it is apparent that the delegation of this power to others would represent an abdication by Congress of its authority, and might easily lead to an entirely different form of government from that which the Constitution set up. A sweeping delegation of legislative authority without the safeguards of legislative guides or standards to govern the administrative agencies was

³² Freund, Ernst, *Administrative Power Over Persons and Property* (Chicago, Univ. of Chicago Press, 1928), p. 29.

fatal to the National Industrial Recovery Act, which was enacted in 1933.³³ The courts, however, have upheld the delegation of legislative powers to commissions when the legislature has laid down standards to guide the action of the administrative body. The prescription of some standard is essential. "Congress can not delegate any part of its legislative power except under the limitation of a prescribed standard."³⁴

In recent cases raising the question of the delegation of legislative power to administrative bodies the Supreme Court of the United States has referred to the delegation of power to the Interstate Commerce Commission to prescribe just and reasonable rates as an example of the kind of delegation of legislative power which is not unconstitutional.³⁵

At first glance the standard "just and reasonable" seems extremely vague, and in effect no standard at all. In this connection, however, it has been pointed out by Mr. Justice Roberts that the phrase "just and reasonable" when applied to charges exacted by those engaged in a public calling had acquired a legal meaning under the common law prior to the days of statutory regulation, and also that the standard is not to be applied in the uncontrolled judgment of the Commission, since any findings that rates are unjust or unreasonable must be based on evidence, and are subject to some degree of judicial review.³⁶ Other equally broad standards in the Interstate Commerce Act have been upheld. Thus in *New York Central Securities Corp. v. United States*, the power of the Commission to authorize the acquisition of control of one carrier by another if such acquisition was found to be "in the public interest" was held not to be an unconstitutional delegation of legislative power when viewed in the light of the purposes and objectives of the Act.³⁷

The rule that the delegation of legislative powers to an administrative body must be accompanied by some standards of guidance is a safeguard to protect the people against the exercise of arbitrary power.

³³ See *Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935), and *Panama Refining Co. v. Ryan*, 293 U.S. 388 (1935).

³⁴ *United States v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 282 U.S. 311, 324 (1931).

³⁵ See the *Schechter*, cited above, p. 539, and the *Panama Refining* case, p. 427. For argument that the delegation of the power to prescribe just and reasonable rates is unconstitutional for lack of statutory standards see Gartner, Karl Knox, "Is Rate Making Power of the Interstate Commerce Commission an Unconstitutional Delegation of Legislative Power," 4 *George Washington Law Review* 26 (1935).

³⁶ See dissenting opinion in *Bowles v. Willingham*, 321 U.S. 503, 538-539 (1944).

³⁷ 287 U.S. 12 (1932).

PRIMARY JURISDICTION OF THE COMMISSION

The importance which commissions have attained in the regulation of carriers is shown by the doctrine announced by the United States Supreme Court in *Texas & Pacific Railway Co. v. Abilene Cotton Oil Co.* in 1907.³⁸ By this decision the courts were shorn of any power to determine the reasonableness of rates in the first instance. A shipper complaining of the unreasonableness of an interstate rate must seek relief from the Interstate Commerce Commission and not from the courts.

It was the intent of Congress, in enacting the law of 1887, to preserve the legal remedies which then existed for protecting the public against unreasonable and discriminatory rates. This is clearly shown by the wording of the Act. Section 9 provided that "any person or persons claiming to be damaged by any common carrier subject to the provisions of this act may either make complaint to the Commission . . . or may bring suit in his or their own behalf for the recovery of the damages for which such common carrier may be liable under the provisions of this act, in any District or Circuit Court of the United States of competent jurisdiction, but such person or persons shall not have the right to pursue both of said remedies, and must in each case elect which one of the two methods of procedure herein provided he or they will adopt." And Section 22 of the Act contained the following language: "Nothing in this act contained shall in any way abridge or alter the remedies now existing at common law or by statute, but the provisions of this act are in addition to such remedies." But in the Abilene case the Supreme Court held that it was improper for a shipper to sue in court for damages caused by charging a rate alleged to be unreasonable without a prior determination of the reasonableness of the rate by the Interstate Commerce Commission.

This decision, although undoubtedly sound, seems so clearly at variance with the express wording and probable intent of Congress that the reasoning of the Court requires attention. The Court held that the existence of the right to resort both to the Commission and the courts would destroy the Act, and the Act "cannot be held to destroy itself." The primary purpose of the Act to Regulate Commerce was to prevent discrimination and to enforce equality of treatment by common carriers. For this reason the published rate was made the legal rate from which all departures were prohibited. But if the courts can find a rate unrea-

³⁸ 204 U.S. 426.

sonable, there may be divergence between the views of the Commission and of the courts concerning the reasonableness of a rate. A rate found reasonable by the Commission might be found unreasonable by a court, and a conflict would arise which would render the enforcement of identical charges for the same shipment impossible. Furthermore, since several courts might have jurisdiction over a single through rate, different courts might reach opposite conclusions as to the reasonableness of a particular rate, again leading to the enforcement of one rate in one jurisdiction and another in another. Thus the existence of a power in the courts to determine the reasonableness of a rate in the first instance would destroy the prohibitions against preferences and discriminations found in the Act.

This primary jurisdiction of the Commission exists wherever discretionary powers are involved and the exercise of judgment is necessary. Thus resort must be had to the Commission to determine whether a rate is reasonable or unreasonable, whether a rule for the distribution of cars to shippers involves an unreasonable preference or discrimination,³⁹ and whether rates are unjustly discriminatory or not.⁴⁰

In cases that involve no administrative question the courts may exercise jurisdiction and award damages for violation of the Act. If a carrier discriminates against shippers by departure from the published tariff, resort may be had to the courts to recover damages without preliminary resort to the Commission.⁴¹ This is different from a situation in which the lawfulness or unlawfulness depends upon determination of the reasonableness or the rate or practice—a situation which therefore requires the exercise of administrative discretion. Action may likewise be taken in court for damages due to unequal enforcement of a car distribution rule.⁴² But if the reasonableness of the rule itself were in issue, it would be necessary to have a preliminary determination of that question by the Commission before the courts could entertain the question of damages.

When the question is one of tariff interpretation the courts may exercise primary jurisdiction. This is because a question of tariff construction is deemed to be a question of law which the courts can settle.⁴³

³⁹ *Baltimore & Ohio Railroad Co. v. Pitcairn Coal Co.*, 215 U.S. 481 (1910); *Morrisdale Coal Co. v. Pennsylvania R. R. Co.*, 230 U.S. 304 (1913); *Midland Valley R. R. Co. v. Barkley*, 276 U.S. 482 (1928).

⁴⁰ *Robinson v. Baltimore & Ohio R. R. Co.*, 222 U.S. 506 (1912).

⁴¹ *Pennsylvania R. R. Co. v. International Coal Co.*, 230 U.S. 184 (1912).

⁴² *Pennsylvania R. R. Co. v. Purnan Coal Co.*, 237 U.S. 121 (1915).

⁴³ *Great Northern Ry. Co. v. Merchants Elevator Co.*, 259 U.S. 285 (1922).

An exception to this rule occurs if words used in a freight tariff are used in a peculiar sense, so that consideration by an administrative body acquainted with the technicalities of tariffs and commercial usage is necessary.⁴⁴

JUDICIAL REVIEW

The commissions, we have seen, are vested with broad discretionary powers in applying to concrete situations the rules of guidance found in the statutes. But when an administrative body is set up with broad regulatory powers, a grave danger arises—the danger of arbitrary and unreasonable exercise of power, endangering the rights and liberties of the parties affected. For this reason the courts must act as a check upon the actions of administrative bodies. This check is achieved through the power of judicial review, i.e., the power to review and, if necessary, to set aside and annul orders of the commission. But it is difficult to determine just how far the courts should go in interfering with the acts of administrative bodies, for if the courts insist upon reopening matters supposedly determined by a commission and substitute their judgment for that of the commission, the latter becomes a worthless body which impedes rather than aids in the regulating process.

FINDINGS OF FACT OF COMMISSIONS ORDINARILY CONCLUSIVE

Difficulties were encountered in the regulation of railroads prior to 1910 by virtue of the unlimited right of review exercised by the courts over the decisions of the Interstate Commerce Commission under the Act to Regulate Commerce. During the debates in Congress leading to the enactment of the Hepburn Act in 1906 there was much controversy over judicial review of the orders of the Commission. The radical or liberal group desired to clothe the decisions of the Commission with finality. The railroad spokesmen, on the other hand, believed in broad review. The result was a compromise which left the matter in an uncertain condition with the general understanding that the advocates of broad review had more nearly obtained what they wanted. But in *Interstate Commerce Commission v. Illinois Central R. R. Co.*, decided in 1910, the United States Supreme Court, recognizing the advantages of commission regulation, held that the courts must confine their review to questions of power and right and not to matters which could be left to the administrative discretion of the Commission. "Be-

⁴⁴ *Ibid.*

yond controversy, in determining whether an order of the Commission shall be suspended or set aside, we must consider, *a*, all relevant questions of constitutional power or right; *b*, all pertinent questions as to whether the administrative order is within the scope of the delegated authority under which it purports to have been made; and *c*, . . . whether, even although the order be in form within the delegated power, nevertheless it must be treated as not embraced therein, because the exertion of authority which is questioned has been manifested in such an unreasonable manner as to cause it, in truth, to be within the elementary rule that the substance, and not the shadow, determines the validity of the exercise of the power."⁴⁵ But further than this the courts will not go. As the Court phrased it, a court should not usurp merely administrative functions by setting aside a lawful administrative order upon its conception as to whether the administrative power had been wisely exercised. "Power to make the order and not the mere expediency or wisdom of having made it, is the question."⁴⁶

This position of the Court was reaffirmed and stated with more precision in the following year.⁴⁷ Citing an earlier case, the Commission said that the findings of the Commission were to be ascribed "the strength due to the judgments of a tribunal appointed by law and informed by experience." The Interstate Commerce Commission is a fact-finding body. Whether a rate or a practice is reasonable or unreasonable, whether a discrimination is just or unjust, or whether a preference is undue or not, are questions of fact which the Commission is particularly fitted to determine. The courts will not therefore substitute their judgment for that of the Commission on such matters. If the courts did so the advantages of commission regulation would be lost, and the Commission would become "a mere instrument for the purpose of taking testimony to be submitted to the courts for the ultimate action."⁴⁸

GROUND FOR JUDICIAL INTERFERENCE

We now come to consider more specifically the grounds on which orders of the Interstate Commerce Commission will be set aside by the courts. A distinction must be made here between orders for the payment of money, such as arise from reparation cases, and orders which prescribe rates, or which require the carriers to do or not to do certain

⁴⁵ 215 U.S. 452, 470 (1910).

⁴⁶ *Ibid.*

⁴⁷ *Interstate Commerce Commission v. Union Pacific R. R. Co.*, 222 U.S. 541 (1911).

⁴⁸ *United States v. Louisville & Nashville Railroad Co.*, 235 U.S. 314, 321 (1914).

things. It is the latter type of order with which we are concerned at this point.

The courts will set aside orders of commissions if the statute under which they are issued is unconstitutional. This power necessarily follows from the power of the courts to annul a statute which is unconstitutional. The constitutionality of many provisions of the Interstate Commerce Act has been unsuccessfully attacked.⁴⁹ Occasionally a statutory provision has been interpreted in a way that was probably not intended by its framers, in order to prevent its being unconstitutional.⁵⁰ Some State statutes regulating railroads have been found unconstitutional, and orders made in accordance with them have been set aside.⁵¹

A second ground for invalidating commission orders exists if a commission exceeds its statutory authority. The Interstate Commerce Commission, as we have seen, is a creature of Congress. It derives its authority from Congress and may exercise only such powers as the statutes provide. The courts must, if necessary, step in to hold the administrative agency in check, and prevent an unauthorized assumption of power. But when a commission oversteps its powers it is usually not because of any desire to extend its control in an unwarranted manner, but is due to a mistaken interpretation of the statute. Thus in the *Maximum Freight Rate Case*,⁵² the Interstate Commerce Commission believed that it had the power to prescribe rates for the future, but the Supreme Court thought otherwise because there was no specific grant of the power in the statute.⁵³

Closely related to the above are the cases in which orders of a commission are set aside because they are not supported by the basic or essential findings upon which the commission's exercise of authority is

⁴⁹ *The Pipe Line Cases*, 234 U.S. 548 (1914); *Wisconsin Railroad Commission v. Chicago, Burlington & Quincy R. R. Co.*, 257 U.S. 563 (1922); *Intermountain Rate Cases*, 234 U.S. 476 (1914); *New England Divisions Case*, 261 U.S. 184 (1923); *Dayton-Goose Creek Ry. Co. v. United States*, 263 U.S. 456 (1924).

⁵⁰ *Texas v. Eastern Texas R. R. Co.*, 258 U.S. 204 (1922); *Ann Arbor Railroad Co. v. United States*, 281 U.S. 658 (1930); *Interstate Commerce Commission v. Oregon-Washington R. R. & Navigation Co.*, 288 U.S. 15 (1933).

⁵¹ *Missouri Pacific Ry. Co. v. Nebraska*, 217 U.S. 196 (1910); *Chicago, Milwaukee & St. Paul R. R. Co. v. Wisconsin*, 238 U.S. 491 (1915).

⁵² 167 U.S. 479 (1897).

⁵³ For illustrations of orders set aside because not within statutory authority of the Interstate Commerce Commission, see *United States v. Pennsylvania R. R. Co.*, 242 U.S. 208 (1916); *Texas v. Eastern Texas R. R. Co.*, 258 U.S. 204 (1922); *Ann Arbor R. R. Co. v. United States*, 281 U.S. 658 (1930); *Peoria & Pekin Union Ry. Co. v. United States*, 263 U.S. 528 (1924); *United States v. Missouri Pacific R. R. Co.*, 278 U.S. 269 (1929); *St. Louis & O'Fallon Ry. Co. v. United States*, 279 U.S. 461 (1929); *United States v. Idaho*, 298 U.S. 105 (1936).

conditioned. Thus in one case an order of the Interstate Commerce Commission requiring the installation of power reverse gear on locomotives in place of hand reverse gear was held void. The power to make such a requirement was dependent upon a finding that the existing device caused "unnecessary peril to life or limb." This fact was not established by the Commission, hence the order was void.⁵⁴

Orders of a commission may also be set aside if constitutional guaranties are violated. Here we refer, not to the unconstitutionality of a statute, but to the violation of specific constitutional guarantees by the action of the commission. Thus the rates prescribed by a commission may be so low as to violate the Fifth or Fourteenth Amendments to the Constitution because they result in the confiscation of property. Rates prescribed by State commissions have sometimes been set aside on these grounds.⁵⁵ Rarely have orders of the Interstate Commerce Commission been set aside on account of failure to recognize the constitutional rights of the parties affected.⁵⁶ Orders of the Commission have frequently been attacked on this ground without success.⁵⁷

Orders of a commission will be set aside if they are based on a misconstruction or misinterpretation of the statute which the commission is administering.⁵⁸ The courts, and not a commission, have the final say as to the meaning and construction of a statute. An order of the Interstate Commerce Commission was set aside in which the Commission denied that it had authority to attach conditions to an abandonment authorization to protect displaced workers.⁵⁹ In another case an order of the Commission was set aside because it had misconstrued certain provisions of Part II of the Act. The Chicago & North Western Railway had provided a motor-freight service between stations on its lines, but

⁵⁴ *United States v. Baltimore & Ohio R. R. Co.*, 293 U.S. 454 (1935). See also *Florida v. United States*, 282 U.S. 194 (1930); *United States v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 294 U.S. 499 (1935); *Atchison, Topeka & Santa Fe Ry. Co. v. United States*, 295 U.S. 193 (1935).

⁵⁵ See *Northern Pacific R. R. Co. v. North Dakota*, 236 U.S. 585 (1915), and the *Minnesota Rate Cases*, where rates were found unconstitutional so far as the *Minneapolis and St. Louis R. R. Co.* was concerned, 230 U.S. 352 (1913).

⁵⁶ The only example, so far as the writer is aware, is *Chicago, Rock Island & Pacific Ry. Co. v. United States*, 284 U.S. 80 (1931).

⁵⁷ For example, *Kansas City Southern Ry. Co. v. United States*, 231 U.S. 423 (1913); *Pennsylvania Co. v. United States*, 236 U.S. 351 (1915).

⁵⁸ As previously noted, misinterpretation of a statute may be the cause of a commission exceeding its statutory powers, but questions of statutory construction may arise that do not involve the charge that the commission has exceeded its powers.

⁵⁹ *Interstate Commerce Commission v. Railway Labor Executives Assoc.*, 315 U.S. 373 (1942).

instead of providing the service directly it had entered into contracts with various motor-vehicle operators to transport the freight for it. The question involved was whether or not the railroad was a common carrier by motor vehicle under Part II of the Act. The Commission held that it was not; the Supreme Court held that it was.⁶⁰

Commission orders may be set aside if based on a mistake of law. By a "mistake of law" is meant the failure of the commission to apply some general rule or principle that the courts have come to consider of general applicability, and which should control the disposition of the case.⁶¹ It would also be a mistake of law for a commission to refuse to consider matters which the courts consider relevant to the disposition of a case.

Three illustrations of instances in which orders of the Interstate Commerce Commission have been set aside may clarify the nature of a "mistake of law." An error of law was made by the Interstate Commerce Commission in holding, as it once did, that the unreasonableness of a rate could depend upon the fact that it would injure a particular industry which had developed under the stimulus of an exceptionally low rate.⁶² An error of law was also made by the Commission when it held that motor carriers could not maintain lower rates on quantity shipments in excess of a truckload, unless lower costs could be shown.⁶³ This action of the Commission was in apparent disregard of the rule of law that competition might possibly justify such a rate. The Commission may be said to have made an error of law when it held that discrimination by a railroad against colored passengers in the accommodations provided was not unjust because there was comparatively little such traffic. ". . . the comparative volume of traffic cannot justify the denial of a fundamental right of equality of treatment."⁶⁴

Lastly, orders of a commission will be set aside if made without evidence or contrary to evidence. Reversal of commission decisions on this ground is necessary to provide adequate safeguards against arbitrary action by regulatory bodies. In a case which came before the Supreme

⁶⁰ *Thomson v. United States*, 321 U.S. 19 (1944).

⁶¹ For a discussion of what constitutes a mistake of law see Sharfman, I. L., *The Interstate Commerce Commission*, vol. II (New York, The Commonwealth Fund, 1931), pp. 441-442; and Dickinson, John, *Administrative Justice and the Supremacy of Law in the United States* (Cambridge, Harvard Univ. Press, 1927), pp. 168-169 note.

⁶² *Southern Pacific Co. v. Interstate Commerce Commission*, 219 U.S. 433 (1911).

⁶³ *Eastern Central Motor Carriers Assoc. v. United States*, 321 U.S. 194 (1944).

⁶⁴ *Mitchell v. United States*, 313 U.S. 80, 97 (1941).

Court in 1912,⁶⁵ the Government contended that, since the Hepburn Act empowered the Commission to prescribe a rate if the Commission was "of the opinion" that the existing charge was unreasonable, the courts could not interfere even if the finding of the Commission was wholly without evidence to support it. To this the Court replied: "But the statute gave the right to a full hearing, and that conferred the privilege of introducing testimony, and at the same time imposed the duty of deciding in accordance with the facts proved. A finding without evidence is arbitrary and baseless. And if the Government's contention is correct, it would mean that the Commission had a power possessed by no other officer, administrative body, or tribunal under our Government. It would mean that where rights depended upon facts, the Commission could disregard all rules of evidence, and capriciously make findings by administrative fiat. Such authority, however beneficially exercised in one case, could be injuriously exerted in another; is inconsistent with rational justice, and comes under the Constitution's condemnation of all arbitrary exercise of power."⁶⁶

If the courts are to set aside orders of commissions because the order is based on insufficient evidence, or contrary to evidence, examination by the court of the evidence on which the Commission made its decision is necessary. This might easily lead to a retrial of the case before the court, a practice which largely explained the ineffectiveness of the Interstate Commerce Commission before 1906. The courts, however, are careful to confine their inquiry to a determination of whether there was enough evidence before the Commission to permit reasonable men to arrive at the decision which the Commission reached. The courts will not weigh the evidence or reach an independent conclusion on the questions of fact. The position of the courts was clearly stated in *Interstate Commerce Commission v. Union Pacific Railroad Co.*⁶⁷ as follows: ". . . the court confines itself to the ultimate question as to whether the Commission acted within its power. It will not consider the expediency or wisdom of the order, or whether, on like testimony, it would have made a similar ruling."⁶⁸ The conclusion of the Commission

⁶⁵ *Interstate Commerce Commission v. Louisville & Nashville R. R. Co.*, 227 U.S. 88 (1913).

⁶⁶ *Ibid.*, p. 91. For another example of a case in which an order of the Commission was set aside because the court did not feel that there was sufficient evidence to sustain the order see *North Carolina v. United States*, 325 U.S. 507 (1945).

⁶⁷ 222 U.S. 541 (1912).

⁶⁸ *Ibid.*, p. 547.

is subject to review, but when supported by evidence is accepted as final.

The Supreme Court has held that an order of the Commission can not stand if supported by a mere "scintilla of proof," but there must be "substantial evidence" to support it. This comes very close to a re-examination of the evidence and an independent conclusion, but still the Court is careful not to substitute its judgment for that of the Commission.⁶⁹ "The judicial function is exhausted when there is found to be a rational basis for the conclusions approved by the administrative body."⁷⁰

REVIEW OF FACTS IF A CONSTITUTIONAL QUESTION IS RAISED

There is one important qualification to the principle that the courts will accept the findings of fact of a commission as conclusive when supported by evidence. If constitutional rights are involved in a matter before the Commission, the courts reserve the right to an independent judgment of both law and facts, provided this is necessary to a determination of the question of constitutionality. This doctrine was suggested in a dictum of Justice Holmes as early as 1908 when the question of the constitutionality of an order of a State commission was raised. Justice Holmes said: "Whether their property was taken unconstitutionally depends upon the valuation of the property, the income to be derived from the proposed rate and the proportion between the two—pure matters of fact. When those are settled the law is tolerably plain. All their constitutional rights, we repeat, depend upon what the facts are found to be. They are not to be forbidden to try those facts before a court of their own choosing if otherwise competent."⁷¹

This question was squarely presented in *Ohio Valley Water Co. v. Ben Avon Borough* where the Supreme Court held unconstitutional a State statute which attempted to withhold from the courts the power to determine the question of confiscation according to their own independent judgment in cases appealed from the State commission. The Supreme Court held that if confiscation was claimed the company was entitled to a determination of that question by a court upon "its own independent judgment as to both law and facts."⁷² The principle of the

⁶⁹ For examples of orders of the Interstate Commerce Commission set aside for lack of evidence, see *Florida East Coast Ry. Co. v. United States*, 234 U.S. 267 (1914); *United States v. New York Central R. R. Co.*, 263 U.S. 603 (1924), *Florida v. United States*, 282 U.S. 194 (1931); *Chicago Junction Case*, 264 U.S. 258 (1924).

⁷⁰ *Mississippi Valley Barge Co. v. United States*, 292 U.S. 282 (1934).

⁷¹ *Prentiss v. Atlantic Coast Line Co.*, 211 U.S. 210, 228.

⁷² 253 U.S. 287, 289 (1920).

Ohio Valley Water case was later restated by the Supreme Court and the logic behind it disclosed. The Court said that to deny the power of the courts to an independent determination of facts on which constitutional questions depended would be "to sap the judicial power as it exists under the Federal Constitution, and to establish a government of a bureaucratic character alien to our system, wherever fundamental rights depend, as not infrequently they do depend, upon the facts, and finality as to facts becomes in effect finality in law."⁷³ The doctrine of the Ohio Valley Water case was reviewed in a more recent case. The Court pointed out that to make the findings of fact of an administrative body conclusive where constitutional rights were involved would be "to place those rights at the mercy of administrative officials and seriously to impair the security inherent in our judicial safeguards."⁷⁴

The Ohio Valley Water case has been much discussed.⁷⁵ Fear has been expressed that the decision endangers the successful functioning of commissions and will lead us back to the condition existing prior to 1906 when the courts did not accept as final the findings of commissions. The principle of the Ohio Valley Water case, however, applies only to cases in which constitutional questions arise, and as stated by Justice Brandeis, ". . . where . . . the probative force of the evidence may be considered free from any question of confiscation, the rule declared in *Ohio Valley Water Co. v. Ben Avon*, which requires in confiscation cases a judicial determination on the weight of the evidence, does not apply."⁷⁶

The rule of the Ohio Valley case may be essential if the courts are to remain the guardians of constitutional rights, although the contrary view has been ably put.⁷⁷ However that may be, the carefully considered findings of fact of an administrative body are entitled to weight even if constitutional rights depend on such findings.

REVIEW IN REPARATION CASES

Orders of the Interstate Commerce Commission for the payment of

⁷³ *Crowell v. Benson*, 285 U.S. 22, 57 (1932).

⁷⁴ *St. Joseph Stock Yards Co. v. United States*, 298 U.S. 38, 52 (1936).

⁷⁵ For instance, Bickel, H. W., "Judicial Determination of Questions of Fact Affecting the Constitutional Validity of Legislative Action," 38 *Harvard Law Review* 6 (1924); Buchanan, J. G., "The Ohio Valley Water Case and the Valuation of Railroads," 40 *Harvard Law Review* 1033 (1927); Dickinson, J., *op. cit.*, pp. 195-202.

⁷⁶ Separate opinion in *St. Louis & O'Fallon R. R. Co. v. United States*, 279 U.S. 461, 538.

⁷⁷ See concurring opinion of Justice Brandeis in *St. Joseph Stock Yards Co. v. United States*, 298 U.S. 38 (1936), pp. 73-93.

money, such as arise from reparation cases, are treated differently from administrative orders prescribing a rule for the future. If a carrier fails to comply with a reparation order of the Commission, the injured party must bring suit in a court to recover. The findings of the Commission as to the injury sustained and the amount of damage are not clothed with finality as in other cases. The Commission's findings are only *prima facie* evidence of the facts. This means that there is a rebuttable presumption in favor of the Commission's conclusions. But the carrier is free to present evidence to rebut the conclusions of the Commission, and the court may reach a conclusion different from that of the Commission.⁷⁸ The reason for this treatment of reparation orders rests upon the difference in the nature of the Commission's power in reparation cases. Here the Commission is acting in a judicial capacity, and it is natural that the courts should reserve the right of review.

FUNCTIONS OF THE COURTS IN REGULATION

The foregoing discussion of the powers of commissions and of the limitations of their power makes it clear that one important function of the courts in railroad regulation is to review and, if necessary, to set aside orders of commissions.

A second function of the courts is to hear all cases involving criminal violation of the law, and to impose fines or other penalties. The Interstate Commerce Commission, not being a court, has no power to impose penalties for violations of the law.

The courts also consider civil suits brought to recover damages for violation of the law. It must be remembered, however, that the Interstate Commerce Commission may also award damages, but when it does, resort to the courts may later be necessary, for if the carrier refuses to pay, the party who is entitled to receive reparation must sue to compel payment. When a proceeding is brought to recover damages in a court instead of before the Interstate Commerce Commission, the doctrine of the Abilene case requires that if the question of violation depends upon the determination of whether a rate or practice is reasonable or unreasonable, unjustly discriminatory or not, prior determination of that fact by the Commission is necessary. If the violation of the law does not involve the exercise of administrative discretion, no prior resort to the Commission is necessary.

⁷⁸ See *Meeker v. Lehigh Valley R. R. Co.*, 236 U.S. 412 (1915); *Mills v. Lehigh Valley R. R. Co.*, 238 U.S. 473 (1915); *Pennsylvania R. R. Co. v. Jacoby & Co.*, 242 U.S. 89 (1916).

Another function of the courts is to enforce the common-law obligations of common carriers where the common law has not been superseded by statutory regulations. The Interstate Commerce Commission has no part in the enforcement of common-law obligations of carriers.

The courts must also determine the constitutionality of regulatory statutes and interpret their provisions. This has already been mentioned in connection with the review of commission orders, but it is clear that the question of the constitutionality of a regulatory act or its proper interpretation may arise otherwise than in connection with a commission order.

Another function of the courts is to compel observance of orders of commissions and compliance with the provisions of the law by injunction or mandamus. The Interstate Commerce Act, for instance, specifically authorizes the courts to issue injunctions to prevent violation of orders of the Commission, and the Elkins Act provides that the courts may enforce observance of published tariffs and require the discontinuance of discriminations forbidden by law.

Lastly, the courts may compel the Commission to perform its duties under the law. Thus in one case the Commission was required by the courts to ascertain certain items called for by the Valuation Act of 1913. The Act directed the Commission to find, among other things, the cost of reacquiring land over and above its present value. The Commission, relying upon a Supreme Court decision to the effect that the cost of reacquiring land was not a proper element to be considered in a valuation proceeding, refused to ascertain the sum when valuing the properties of the Kansas City Southern Railway. The Supreme Court required the Commission to ascertain the sum since the Commission had no authority to disobey the express command of the statute.⁷⁹

FUNCTIONS OF THE EXECUTIVE BRANCH OF THE GOVERNMENT

The executive branch of the government comes into contact with regulation principally in two ways. First, the President, with the advice and consent of the Senate, appoints the members of the regulatory commissions. Second, the President is charged with the enforcement of the laws, and has some responsibilities in connection with the enforcement of the acts regulating carriers.

The President can do much to make regulation effective by the

⁷⁹ *United States ex rel Kansas City Southern Ry. Co. v. Interstate Commerce Commission*, 252 U.S. 178 (1920).

quality of his appointees to the Interstate Commerce Commission. Political considerations, unfortunately, often play a part in the appointments to the Commission,⁸⁰ but notwithstanding this fact it is generally recognized that the appointments have usually been of high quality.⁸¹

Although the President appoints the members of the Interstate Commerce Commission he does not have the power to remove them except for specified causes. During their term of office—seven years—members of the Commission may be removed only for “inefficiency, neglect of duty, or malfeasance in office.” The fact that the President may not remove members of independent regulatory commissions at will is of great importance. This was pointed out by the United States Supreme Court in 1935 when President Roosevelt removed Commissioner Humphrey from the Federal Trade Commission. The court pointed out that the independent commissions like the Federal Trade Commission, the Interstate Commerce Commission and others, were to be independent in fact, and in no way beholden to the Executive. The following statement of the Court, although referring to the Federal Trade Commission, applies equally to the Interstate Commerce Commission: “The commission is to be nonpartisan; and it must, from the very nature of its duties, act with entire impartiality. It is charged with the enforcement of no policy except the policy of the law. Its duties are neither political nor executive, but predominantly quasi-judicial and quasi-legislative.”⁸² Such independence cannot be attained if the tenure of office of the commissioners is dependent upon the will of another, for as the Court said, “it is quite evident that one who holds his office only during the pleasure of another, cannot be depended upon to maintain an attitude of independence against the latter’s will.”⁸³

The second point of contact between the executive branch of the Government and the Commission is through the enforcement of the Interstate Commerce Act. Although orders of the Interstate Commerce Commission are binding upon the carriers, unless set aside by the courts,

⁸⁰ See Herring, E. Pendleton, *Federal Commissioners: A Study of Their Careers and Qualifications* (Cambridge, Harvard Univ. Press, 1936), ch. VII; also Sharfman, I. L., *The Interstate Commerce Commission*, vol. IV (New York, Commonwealth Fund, 1937), pp. 22-25.

⁸¹ Sharfman, *op. cit.*, pp. 27-35. For a biographical sketch of the first fifty-five members of the Interstate Commerce Commission see Miller, Clarence A., *The Lives of the Interstate Commerce Commissioners and the Commission's Secretaries* (Reprinted from I.C.C. Practitioners' Journal, 1946).

⁸² *Humphrey's Executor v. United States*, 295 U.S. 602, 624 (1935).

⁸³ *Ibid.*, p. 629.

it is through the Department of Justice that action is taken to enforce obedience to the Act. The Bureau of Inquiry of the Commission refers violations of the Act to the appropriate United States Attorney for criminal prosecution when such action is necessary. In civil proceedings for the recovery of penalties, and in mandamus or other proceedings to compel the filing of tariffs or reports, or to compel or restrain some action on the part of the carriers, the information is submitted to the Attorney General for appropriate action. Attorneys in the Commission's Bureau of Inquiry, however, may aid Government attorneys in the preparation and prosecution of cases in the courts.

DANGERS AND WEAKNESSES OF COMMISSION REGULATION

Although regulation by administrative bodies or commissions is essential to successful regulation of railroads, there are certain dangers and weaknesses in the system.

The danger of arbitrariness in action and assumption of unwarranted power inheres in all attempts at control through administrative bodies to whom broad powers of regulation are delegated. It is for the purpose of warding off this danger that the right of judicial review is insisted upon. This danger has been effectively eliminated in our Federal regulatory system.

A second danger lies in weakness of personnel. The task of regulation is at best a difficult one, and it is essential that commissions consist of able men. Our State commissions have sometimes been criticized for failure in this respect although some of them have consisted of men of high caliber. In general, a high standard of ability has been maintained in appointments to the Interstate Commerce Commission. From the very beginning the Commission has had some members of outstanding ability and reputation who have been an honor to the public service and who have played an important part in making regulation a success.

A third danger in regulation by commissions is political interference. A commission is, and must remain, an impartial body. Commissioner Eastman has stated emphatically that commissions "must not be under the domination or influence of either the President or Congress or of anything else than their own independent judgment of the facts and the law."⁸⁴ The high esteem which has attached to the Interstate Commerce Commission is due, in large measure, to its independence and freedom from political influences. In the words of a former member

⁸⁴ "Eastman's Admonition on Federal Agencies," 116 *Railway Age* 602 (1944).

of the Commission, that body has "performed its duties in accord with its conscientious convictions of what was the right thing to do, and has not been swayed by popular clamor, by any political influence, . . . and if the time ever comes when the Interstate Commerce Commission has to consider whether or not a thing is going to be popular, and whether or not it is going to be attacked by one political party or another, its usefulness will be very seriously impaired . . ."⁸⁵ The reason for making the Interstate Commerce Commission an independent body, not subordinate to any of the departments of the executive branch of the Government, was to keep it free from political control and the influence of changing administrations. For the most part the executive branch of the Government has not attempted to interfere with the Commission or its decisions. President Wilson is reported to have said, at a time when important controversies were before the Commission which affected the country as a whole, that he would as soon think of proffering suggestions to the Supreme Court upon a matter before it as to suggest how the Commission should decide a case.⁸⁶ Later Presidents have not always been as particular, and have at times made their wishes known to the Commission, or have made public statements which might be interpreted as prejudging matters before the Commission.⁸⁷ From time to time proposals are advanced for bringing regulatory commissions under the control of the Executive.⁸⁸ Political influences frequently appear in the appointment and confirmation of commissioners. One of the most discouraging incidents of this sort occurred in 1928 when the Senate refused to confirm the reappointment of Commissioner Esch apparently because of his vote in the famous Lake Cargo Coal Case, a very difficult and bitterly contested case, in which opposing sectional interests were involved.⁸⁹

Political interference with the Commission may come from the legislative branch of the Government as well as from the executive branch. One of the prime merits of commission regulation is that the

⁸⁵ Statement of Edgar E. Clark before the Committee on Interstate Commerce, U.S. Senate (1921). Reprinted by National Association of Owners of Railroad Securities.

⁸⁶ Daniels, W. M., *American Railroads: Four Phases of Their History* (Princeton, Princeton Univ. Press, 1932), p. 83.

⁸⁷ For illustrations, see Sharfman, *op. cit.*, vol. II, pp. 455-458.

⁸⁸ E.g., *Report of the President's Committee on Administrative Management in the Government of the United States* (Washington, Government Printing Office, 1937), pp. 39-42. For a reply see Interstate Commerce Commission, *Annual Report*, 1938, pp. 25-27.

⁸⁹ See *Hearings of Senate Committee on Interstate Commerce on Confirmation of Commissioner Esch*, 70th Cong., 1st sess. (1928).

Commission is protected from political pressures, and can decide controversies in a semi-judicial atmosphere and enforce the policy of the law with complete impartiality. Congress should not destroy this advantage of commission regulation by bringing pressure to bear upon the Commission in an attempt to influence its decisions. It should be borne in mind, however, that the policies of the law which the Commission must carry out are policies which have been laid down by the legislative branch of the Government. Congress, therefore, may properly concern itself with the actual results of regulation, and with the policies adopted by the Commission in carrying out the broad and general standards of the Act. There is a constant stream of bills under consideration by committees of Congress which would modify regulatory policy, or which would specify more definitely the policies which should be observed by the Commission in administering particular provisions of the Act. Needless to say much of the proposed legislation would prove to be unwise, and, in fact, very little of it survives the legislative process to become part of the law, but it should be clearly recognized, however, that in a democratic form of government the ultimate responsibility for determining regulatory policy rests in the people acting through their chosen representatives.

In a country as large as the United States there is danger that sectional rivalries may split a commission into factions. This is particularly true if appointments are made on a regional basis. Although there is merit in having wide geographical representation upon a commission there is danger if the members consider that it is their function to represent the sectional interests of the regions from which they come. The plea for geographical representation upon the Commission was severely criticized by Commissioner Meyer. "What we need," he said, "is men who have the capacity and the industry to learn to understand what the facts are in a controversy, no matter where the parties may reside, and the courage to act accordingly and not men whose official action is controlled by the state of opinion in the State or region which they are supposed to represent."⁹⁰ And Commissioner Eastman once said: "Selection of the members of an administrative tribunal from different parts of the country has its advantages, but they turn to disadvantages, if the members regard themselves as special pleaders for their respective sections."⁹¹

⁹⁰ Address before the University of Wisconsin chapter of Phi Beta Kappa (1928).

⁹¹ 116 *Railway Age* 602 (1944).

The commission system of regulation is often condemned on the grounds that it leads to the control of the commission by the industries regulated. State commissions in particular have often been criticized because of their subserviency to the industries which they were supposed to control. The Interstate Commerce Commission has largely escaped criticism of this sort, and there is every reason to believe that the Commission has sought to regulate railroads in strict conformity with the law and without favor.

COMMISSIONS AND THE PUBLIC INTEREST

Commission regulation is sometimes criticized on the ground that commissions do not champion the cause of shippers and the public in general. The Interstate Commerce Commission answered a charge of this sort which had been directed against it in 1925 by saying: "It is not our view that we are responsible as an advocate either for the shipper or for the carrier. We are charged with the duty to administer definite acts of Congress with equal impartiality to both shippers and carriers, with an outlook as comprehensive as the whole country—in 'coldest neutrality'."⁹²

Even though a commission should be an impartial body and administer the law in coldest neutrality, a commission is more than a court to decide controversies between litigants; it has a responsibility to look out for the public interest. The Supreme Court of the United States has said: "The Commission represents the public";⁹³ and the Court has asserted that the outlook of the Commission "must be as comprehensive as the interest of the whole country."⁹⁴ The responsibility of a commission to the public was ably stated by Commissioner Eastman as follows: "An administrative tribunal has a broader responsibility than a court. It is more than a tribunal for the settlement of controversies. The word 'administrative' means something. The policies of the law must be carried out. If in any proceedings the pertinent facts are not fully presented by the parties, it is the duty of the tribunal to see to it, as best it can, that they are developed of record. A complainant without resources to command adequate professional help should be given such protection.

⁹² Published letter from Commissioner Aitchison to the President of the United States in reply to criticisms of the Commission by the Agricultural Conference (1925).

⁹³ *United States v. Merchants Assoc. of Sacramento*, 242 U.S. 178, 188 (1916).

⁹⁴ *Interstate Commerce Commission v. Chicago, Rock Island & Pacific Ry. Co.*, 218 U.S. 88, 102-103 (1910).

The tribunal should also be ready to institute proceedings on its own motion, whenever constructive enforcement of the law so requires.”⁹⁵

SELECTED REFERENCES

H. B. Vanderblue and K. F. Burgess in *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), chs. II, III, IV, and V, discuss many matters taken up in this chapter. The most complete account of the function of the Interstate Commerce Commission and its relation to the other agencies of government is I. L. Sharfman, *The Interstate Commerce Commission*, Vol. II (New York, The Commonwealth Fund, 1931). Other excellent studies of commission regulation in general are John Dickinson, *Administrative Justice and the Supremacy of Law* (Cambridge, Harvard University Press, 1927), and Robert E. Cushman, *The Independent Regulatory Commissions* (New York, Oxford Univ. Press, 1941). Much valuable material on commission regulation with special reference to the Interstate Commerce Commission is in Board of Investigation and Research, *Report on Practices and Procedures of Governmental Control of Transportation*, 78th Cong., 2d sess., House Doc. No. 678 (1944).

The Interstate Commerce Commission's organization and functions are described in Clyde B. Aitchison, *Organization and Manner of Work of the Interstate Commerce Commission*, 71st Cong., 1st sess., Senate Document No. 8 (1929). The most extensive description of the Commission's organization and functioning is Bureau of Statistics, Interstate Commerce Commission, *Interstate Commerce Commission Activities, 1887-1937* (Washington, Superintendent of Documents, 1937).

The doctrine of the Abilene case is discussed by H. W. Bickl  in "Jurisdiction of Certain Cases Arising Under the Interstate Commerce Act," 60 *University of Pennsylvania Law Review* 1 (1911).

The most exhaustive study of the conflict between State and Federal authority in the regulation of interstate commerce is George G. Reynolds, *The Distribution of Power to Regulate Interstate Commerce Between the Nation and the State* (New York, Columbia Univ. Press, 1928). There is a considerable volume of periodical literature on the subject. Good discussions are: W. C. Coleman, "The Evolution of Federal Regulation of Intrastate Rates: The Shreveport Rate Cases," 28 *Harvard Law Review* 34 (1914); P. S. Peyser, "Authority of the Interstate Commerce Commission Over Intrastate Rates," 17 *Georgetown Law Journal* 39 (1928); S. Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's 1941), ch. XXXI.

For interesting material on group and political pressures as they have affected the Interstate Commerce Commission, see E. Pendleton Herring, *Public Administration and the Public Interest* (New York, McGraw-Hill, 1936), chs. XI and XII; and by the same author, *Federal Commissioners: A Study of their Careers and Qualifications* (Cambridge, Harvard University Press, 1936), ch. VII.

On the necessity of maintaining the independence of the regulatory com-

⁹⁵ 116 *Railway Age* 602 (1944).

missions, see I. L. Sharfman, *The Interstate Commerce Commission*, vol. IV (New York, Commonwealth Fund, 1937), pp. 254-274; Geo. H. Mortimer, "Should the Interstate Commerce Commission Remain an Independent Tribunal," 5 *George Washington Law Review* 701 (1937); Burton K. Wheeler, "I.C.C. Should Be Independent," 102 *Railway Age* 631 (1937).

The question of judicial review has been frequently discussed in law periodicals. The following are good discussions of various aspects of the subject: T. P. Hardman, "Judicial Review as a Requirement of Due Process in Rate Regulation," 30 *Yale Law Journal* 681 (1921); H. W. Biklé, "Judicial Determination of Questions of Fact Affecting Constitutional Validity of Legislative Action," 38 *Harvard Law Review* 6 (1924); H. B. Brown, "Functions of Courts and Commissions in Public Utility Regulation," 38 *Harvard Law Review* 141 (1924); G. H. Robinson, "Recent Cases on the Commission as Agency for the Regulation of Public Utilities," 7 *Boston University Law Review* 254 (1927); John G. Buchanan, "The Ohio Valley Water Case and the Valuation of Railroads," 40 *Harvard Law Review* 1033 (1927); I. L. Sharfman, *The Interstate Commerce Commission*, vol. IV (New York, The Commonwealth Fund, 1937), ch. XVI; Martin Tollefson, "Judicial Review of the Decisions of the Interstate Commerce Commission," 5 *George Washington Law Review* 543 (1937).

CHAPTER XIV

RAILROAD COMPETITION AND ITS CONTROL

WHEN railroads were new there was little thought of subjecting them to an elaborate system of regulation. Competition, which was relied upon to control prices of other goods and services, was expected to control the price of transportation. This attitude was natural enough in view of the prevalent laissez-faire theory of the relation of the state to business enterprises. Competition, furthermore, had worked with some degree of success as a regulator of the charges made for carrying goods over highways, toll roads, canals, and natural waterways. It was eventually discovered that rival common carriers could not haul goods over the same railway, but that the railway company must have a monopoly of carriage over its lines. This made a vast difference in the efficacy of competition. Such competition as might exist would have to be between rival railway lines, and not between rival transportation companies using the same rails and right-of-way. This fact has certain important consequences. First, economic waste is involved if two railroads are constructed when one can carry all the traffic. And since the cost of building railroads is great, the economic waste involved in duplication is great. To build two railway lines where one is sufficient is as wasteful as building two highways where one will serve the purpose, or two waterways, say Panama canals, where one is sufficient. In the second place, because of the huge investment necessary for railroad construction and the fixed and specialized nature of that investment, capital cannot flow into and out of the industry easily enough to act as a satisfactory regulator of the rate level.¹

RUINOUS COMPETITION

There is another peculiarity which results from the fact that railway competition must be competition between rival lines. Competition will reduce particular rates below the cost of the service. This point was made in our discussion of railway rate theory and follows from the fact that to a great extent railroad expenses are constant and do not vary with the volume of traffic.² Under the stress of competition, railroads

¹ Pp. 133-134, *supra*.

² Pp. 142-143, *supra*.

will carry traffic at little more than the out-of-pocket costs. As Hadley observed, "It very often involves worse loss to stop producing than to produce below cost."³ This is what is meant by saying that competition between railroads is ruinous. It means more than the destruction of the weaker rivals; it means that all of the participants in the struggle will eventually succumb because the rates are forced below the full cost of the service.

RATE WARS

That unrestricted competition between railroads forces rates to unremunerative levels is amply borne out by experience. Rate wars of a particularly violent nature were common in the sixties and seventies of the last century. Although there is no gain to a railroad in charging less than out-of-pocket costs for the transportation of commodities, it would appear that, under the stress of competition, rates often fell below that point. Rates were sometimes so low, it is said, that they scarcely paid for the oil used in lubricating the locomotives and car wheels that transported the goods. At times cattle were hauled from Chicago to the seaboard for \$5.00 per car, although the normal rate at the time was about \$110 per car.⁴ Hadley states that in 1873 cattle were carried from Chicago to New York for a dollar per car.⁵ These are exceptional cases, but reductions far less extreme would result in rates that make little or no contribution to the maintenance of the railway or to a return on the capital invested.

OBJECTIONS TO UNRESTRICTED COMPETITION IN RATES

Unrestricted competition in railway rates is objectionable for three reasons. It depletes the revenues of the railroads, as we have just pointed out, and if continued for any length of time it will result in bankruptcy. Competition in rates also results in extreme fluctuations in the rates charged. The constant slashing of rates, followed by periods of more normal rates when temporary agreement has been reached, introduces an element of uncertainty that is peculiarly disconcerting to business. A dealer may stock up with goods at one time, only to find that his competitor a few days later pays a lower transportation rate and can undersell him. Or a contractor, making a bid on a piece of construction work,

³ *Railroad Transportation* (New York, Putnam's, 1885), p. 70.

⁴ Ringwalt, J. L., *Development of Transportation Systems in the United States* (Philadelphia, Author, 1888), p. 251.

⁵ "American Railroad Legislation," 75 *Harper's* 141, 147 (1887).

finds his calculations upset because of a change in the freight rates after the bid has been made. Stability in freight rates is desirable, and unrestrained competition causes numerous and violent fluctuations. Table XIV shows the fluctuations in first-class rates between New York and Chicago in the year 1869.

TABLE XIV
FIRST-CLASS NEW YORK-CHICAGO RATES DURING 1869⁶

		Cents per Hundred Pounds
Feb.	4	188
	18	45
	24	40
Mar.	15	160
July	1	188
	31	70
Aug.	2	45
	4	40
	5	30
	7	25
	23	38
	30	43
Sept.	22	40
	24	35
	30	30
Oct.	4	50
	9	75
	13	125
Nov.	1	140
	29	150

A third objection to competition in rates is that it leads to discrimination. It is usually the uneven character of competition that brings about place discrimination. At competitive points rates are reduced to levels that cannot be maintained at all points if the railroad is to remain solvent; at noncompetitive points the rates either remain on a normal level or are placed on a monopolistic basis. Rebates and concessions, furthermore, are often given to large shippers who are in a position to divert traffic to other lines. Making concessions to certain shippers is a more effective means of competition than reducing the published rates because it can be kept secret, for a time at least, and hence does not at once invite a cut by a rival line.

RESTRICTIONS ON RAILWAY COMPETITION

The railroads early discovered that railroad competition was destructive. Some means of holding competition in check was necessary

⁶ Fink, Albert, *Statistics Regarding the Movement of Eastbound and Westbound Traffic Over the Trunk Lines and Connecting Road*: (New York, Russell Bros., 1884), p. 39.

as a means of self-preservation. Various devices were employed to accomplish this purpose.

AGREEMENTS TO DIVIDE TERRITORY

One such device consisted of agreements to divide territory. Generally these were agreements whereby each carrier promised not to extend its lines into the territory occupied by another, although sometimes the agreements dealt with the solicitation of traffic by rival lines. An agreement to divide territory was made in 1880 by the Southern Pacific on the one hand, and the roads controlled by the Gould interests on the other, whereby the northern half of Texas was turned over to the latter and the southern half to the Southern Pacific. The two systems agreed not to build lines into the other's territory.⁷ A year earlier an agreement had been made by the three leading railroads in Colorado—the Union Pacific, the Atchison, Topeka & Santa Fe, and the Denver and Rio Grande—allotting certain portions of Colorado to each of the lines in the agreement.⁸

RATE AGREEMENTS

Agreements to divide territory were effective in preventing the construction of competing lines, but when competitive lines were already in existence a different type of agreement was usually necessary. The earliest device to meet this situation was the simple rate agreement, whereby the carriers agreed to maintain specific rates. There is some record of rate agreements in the forties and fifties, but it was not until the further extension of the railway net in the sixties and seventies that they became common.⁹ Though various attempts to establish agreed rates in Trunk-Line Territory were made in the early seventies by the principal east-and-west lines, there was difficulty in bringing all roads into the arrangement, and such agreements as were made proved to be short-lived.¹⁰

Rate agreements suffered from two weaknesses. The incentive to break away from the agreed rates on the part of individual carriers was

⁷ Potts, C. S., *Railroad Transportation in Texas*, Bulletin of the University of Texas No. 119 (1909), pp. 73-78.

⁸ Phillips, John B., "A Colorado Railroad Pool," 5 *University of Colorado Studies* 137, 137-138 (1908).

⁹ MacGill, Caroline E., *History of Transportation in the United States Before 1860* (Washington, Carnegie Institution, 1917), pp. 565-570.

¹⁰ Langstroth, C. S., and Stilz W., *Railway Cooperation*, Publications of the University of Pennsylvania, Studies in Political Economy and Public Law No. 15 (1899), pp. 20-31.

too great. Even if the agreement was observed for a time, mutual suspicion on the part of railway officials—often aggravated by the insinuations of shippers looking for concessions—resulted in eventual breakdown. This difficulty might have been overcome if the agreements could have been enforced by the courts. Here the second weakness appears. The legal status of rate agreements was questionable. They were agreements in restraint of trade. There was some difference of opinion as to whether the agreements were so unreasonable as to be unlawful, or whether they were reasonable and hence lawful.¹¹ But their precarious legal position made attempts at enforcement through the courts impracticable.

POOLING AGREEMENTS

The failure of rate agreements to prevent rate wars led to the formation of pooling agreements. A pooling agreement is an agreement between railroads to divide competitive business. They are of two types—traffic pools and money pools.¹² In a traffic pool the competitive traffic is divided among the rival carriers. In a money pool the traffic moves over the various lines without interference, but the receipts from the competitive business, or a portion thereof, are divided among the participating carriers. Traffic pools imply an interference with the privilege of shippers to route their traffic, and it was largely for this reason that the money pool was more common. Sometimes, however, a traffic pool was successfully operated by permitting some large shipper to send his shipments over one route or another in amounts that would even up the total flow of traffic according to agreed percentages. Shippers acting in this capacity were called "eveners," and in return for their services to the railroad companies they received rebates or concessions from the published rates. One of the most famous of these arrangements was the cattle eveners' pool, formed in 1875, in which cattle shipments from Chicago to New York were evened in accordance with agreed proportions by a group of large shippers in return for generous rebates. The Standard Oil Company acted as an evener in connection with shipments of crude petroleum from producing points in Pennsylvania to the seaboard.¹³

¹¹ The legal status of rate agreements under the common law was discussed at length by the United States Supreme Court and by the lower court in the *Trans-Missouri Freight Association Case*, and in both decisions a minority opinion took issue with the conclusions of the majority. 166 U.S. 290 (1897); 58 Fed. 58 (1893).

¹² Some writers consider agreements to divide territory as a third type of pool.

¹³ Ringwalt, *op. cit.*, p. 273.

The Chicago-Omaha pool, organized in 1870, is often called the first pool in the United States, though others probably existed before that time. This pool divided the Chicago-Omaha business between the Chicago, Burlington & Quincy, the Chicago & North Western, and the Chicago, Rock Island & Pacific. It was reorganized in 1882 and later merged in a larger organization.¹⁴ An elaborate system of pools was maintained by the Southern Railway and Steamship Association in the South.¹⁵ Pooling agreements were very extensive in the seventies and eighties. During 1878 the Illinois Central Railroad participated in more than twenty pools in Iowa and Illinois alone, and the Chicago and Alton was a party to twelve such arrangements.¹⁶

Pooling arrangements were only partially successful in stabilizing rates. Rate wars frequently broke out, started by some carrier dissatisfied with its allotment of the competitive traffic. Some of the pooling agreements, however, succeeded in maintaining rates at profitable levels.

LEGAL STATUS OF POOLS

One reason why pooling agreements were not wholly successful was the difficulty of enforcing observance of them through court action. Pooling agreements were quite generally held to be unreasonable restraints of trade, and the courts would therefore refuse to enforce observance of them.¹⁷ The Supreme Court of Louisiana summed up the common-law status of pooling in 1889 by saying: ". . . American jurisprudence has firmly settled the doctrine that all contracts which have a palpable tendency to stifle competition, either in the market value of commodities or in the carriage or transportation of such commodities, are contrary to public policy, and therefore incapable of conferring upon the parties thereto any rights which a court of justice can recognize or enforce."¹⁸ The philosophy behind this position was revealed somewhat more fully in a similar pronouncement by the Indiana Supreme Court in 1890: ". . . a contract between corporations charged with a public duty, such as is that of common carriers, providing for

¹⁴ For a description see Riegel, Robert, "The Omaha Pool," 22 *Iowa Journal of History and Politics* 569 (1924).

¹⁵ Described fully in Hudson, H., "The Southern Railway and Steamship Association," 5 *Quarterly Journal of Economics* 70 (1890).

¹⁶ Newcomb, H. T., "The Present Railway Situation," 165 *North American Review* 591, 595 (1897).

¹⁷ See *Chicago, Milwaukee & St. Paul Ry. Co. v. Wabash, St. Louis & Pacific Ry. Co.*, 61 Fed. 993 (1894).

¹⁸ *Texas & Pacific Ry. Co. v. Southern Pacific Ry. Co.*, 6 So. 888, 891.

the formation of a combination having no other purpose than that of stifling competition, and providing means to accomplish that object, is illegal. The purpose to break down competition poisons the whole contract, and there is here no antidote which will rescue it from legal death. The element which destroys the contract is the purpose to stifle competition, for a combination of rival carriers, moved and controlled by that purpose alone, is destructive of public interest, and, to the last degree, antagonistic to sound public policy."¹⁹ In the case quoted, as in some other cases, there were guarded statements to the effect that an agreement designed wholly to prevent destructive competition might be lawful, but pooling agreements generally fared badly in the courts. Occasionally a court recognized that competition between railroads was not an unmixed blessing. The New Hampshire Supreme Court in 1890 recognized that railway competition might become ruinous in character. "While, without doubt, contracts which have a direct tendency to prevent a healthy competition are detrimental to the public and consequently against public policy, it is equally free from doubt that when such contracts prevent an unhealthy competition, and yet furnish the public with adequate facilities at fixed and reasonable rates, they are beneficial, and in accord with sound principles of public policy. For the lessons of experience, as well as the deductions of reason, amply demonstrate that the public interest is not subserved by competition which reduces the rate of transportation below the standard of fair compensation; and the theory which formerly obtained that the public is benefited by unrestricted competition between railroads has been so emphatically disproved by the results which have generally followed its adoption in practice that the hope of any permanent relief from excessive rates through the competition of a parallel or rival road may, as a rule, be justly characterized as illusory and fallacious."²⁰

The extralegal status of railroad pools at common law did not prevent their establishment. The difficulties of enforcing them were overcome in part by strengthening the organizations, usually called traffic associations, which administered them. It was the Act of 1887 that brought an end to the era of pooling agreements. Section 5 of the Act provided: "That it shall be unlawful for any common carrier subject to the provisions of this act to enter into any contract, agree-

¹⁹ *Cleveland, Columbus, Cincinnati & Indianapolis Ry. Co. v. Closser*, 126 Indiana 348, 361.

²⁰ *Manchester & Lowell Railroad v. Concord Railroad*, 20 Atl. 383, 384 (1890).

ment, or combination with any other common carrier or carriers for the pooling of freights of different and competing railroads, or to divide between them the aggregate or net proceeds of the earnings of such railroads, or any portion thereof."

Even in 1887 there was much doubt of the wisdom of prohibiting pooling. The Cullom report, on which the Act was largely based, had not recommended it. The prohibition was inserted in the law as a result of a number of last-minute compromises and at the insistence of Judge Reagan of Texas.

During the nineties there was continual agitation for relaxing the anti-pooling provisions. The railroad spokesmen went further, asking that the agreements be given a legal status so that they could be enforced in the courts. They argued that pooling prevented discrimination, stabilized rates, and eliminated ruinous competition. There was no denying that this was true in so far as pooling was successful in actually controlling competition. To a certain extent the anti-pooling provisions were inconsistent with the rest of the Act. The main purpose of the Act was to prevent discrimination, yet competition existing at some points and not at others was the principal cause of discrimination. As the Commission pointed out in 1898, the Act endeavored "to eradicate the results and to perpetuate the cause."²¹ But railway spokesmen also maintained that pooling agreements would not prevent competition, and hence that the public had no need to fear monopoly. Undoubtedly there was some truth in the contention that a desire for a larger share of the total traffic in the next allotment caused competition between railroads in a pooling agreement, but it must be remembered that the benefits of pools to the participating carriers resulted from the elimination of competition. In so far as competition was not eliminated the benefits would not arise; and if the benefits were attained, competition was largely eliminated.

Was the anti-pooling policy a wise or a foolish one? It would have been better to have permitted pooling, if, at the same time, adequate public control over rates had been provided. But in the absence of adequate regulation the public was justified in insisting upon competition as further protection. As Commissioner Prouty pointed out in 1897: "Competition gives a low rate; but it produces a succession of evils which are deplorable. Pooling, by removing competition, does away with the evils; but it puts into the hands of the carriers absolute power over

²¹ *Annual Report*, 1898, p. 16.

the rate; and that power should not be entrusted to them until some effectual restraint is put upon the exercise of it."²² And the Interstate Commerce Commission, although admitting the evils of unrestrained competition and the benefits of pooling, was even more emphatic in its language. "The members of the Interstate Commerce Commission wish to say in the strongest possible terms that they are unanimous in the opinion that . . . to repeal the fifth section and enact in its place a pooling bill, thereby permitting and inviting unlimited combination between carriers, would be little better than a crime against the people of the United States, unless this tribunal, or some other tribunal, is at the same time invested with adequate powers of control."²³

RATE AGREEMENTS AND TRAFFIC ASSOCIATIONS

After 1887 the traffic associations which had administered the pooling agreements were reorganized, and the pooling agreements were generally given up. In their stead the carriers resorted to rate agreements. Carefully established rate differentials were sometimes as effective in dividing traffic as pooling arrangements had been. The rate agreements maintained by the carriers were more successful than the ones attempted before pooling had become common. The traffic associations were strong enough to enforce observance, sometimes by a system of fines. But even after 1887 a few arrangements continued in effect which practically constituted pools. One such pool was called the Buffalo Grain Pool. It divided the grain traffic from Buffalo to New York City between a number of railroads.²⁴

LEGAL STATUS OF RATE AGREEMENTS

From 1887 to 1897 stability in rates, in so far as it was attained, was largely due to the rate agreements maintained through traffic associations. The common-law status of these agreements remained uncertain as we have already pointed out. As far as the Act to Regulate Commerce was concerned, rate agreements were neither authorized nor prohibited, since the Act made no mention of them. But in 1890 the Sherman Anti-Trust Act was adopted. Section 1 provided that "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with

²² 24 *Forum* 446, 454 (1897).

²³ *Annual Report*, 1897, p. 50.

²⁴ Interstate Commerce Commission, *Annual Report*, 1900, pp. 21-23.

foreign nations" was illegal. Section 2 declared that "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor." In 1897 the United States Supreme Court, in *United States v. Trans-Missouri Freight Association*,²⁵ held that the Trans-Missouri Freight Association, which had maintained rates in the territory immediately west of the Missouri River, was a combination prohibited by the Sherman Act. In the following year a similar decision was reached regarding the Joint Traffic Association which maintained rates in Trunk-Line Territory.²⁶ In the Trans-Missouri case a majority of the Court held that the rate agreements were agreements in restraint of trade and so fell within the prohibitions of the Sherman law. A minority held that the agreement was a reasonable one and that the Sherman Act was not intended to apply to *all* combinations in restraint of trade, but to unreasonable ones such as were condemned by the common law.

INFORMAL RATE AGREEMENTS

The first effect of the Trans-Missouri and Joint Traffic Association cases was to cause the railroads to turn to informal rate agreements and understandings. The traffic associations continued in existence although formal rate agreements were abandoned. The railroads had learned to act together and they continued to do so after the formal rate agreements were eliminated. In 1901 the Interstate Commerce Commission declared that the decisions of the United States Supreme Court in the Trans-Missouri case and the Joint Traffic Association case had "produced no practical effect upon the railway operations of the country,"²⁷ and Commissioner Prouty, three years later, asserted that there had been no considerable time since the rendition of those decisions when competitive rates had not been in fact the subject of concerted action.²⁸ As we have noted elsewhere,²⁹ freight classifications and freight rates are made by classification committees and by rate bureaus or associations, and this procedure constitutes collective action by the

²⁵ 166 U.S. 290.

²⁶ *United States v. Joint Traffic Association*, 171 U.S. 505.

²⁷ *Annual Report*, 1901, p. 16.

²⁸ "Railway Rates and the Merger Decision," 178 *North American Review* 829, 832 (1904).

²⁹ Pp. 168-169 and 175, *supra*.

carriers concerned. Although the right of independent action by individual carriers seems to be recognized in the various committees and bureaus, there must necessarily be a large element of mutual consent and agreement when rates are made in this way.

CONSOLIDATION AND COMBINATION

In the late nineties a nation-wide movement toward railroad consolidation and combination set in. Combination of railroads was no new thing, since our large railroad systems had been built up by the combination of numerous independent railroad companies. Thus the New Haven railroad is said to be a combination of 203 separate companies,³⁰ the Chicago, Burlington & Quincy of approximately 200 different companies,³¹ and the Pennsylvania railroad system of over 600.³² But the consolidations of the nineties and the following decade were not so much for the purpose of building up railroad systems which would be strong from an operating and a traffic standpoint as for the purpose of eliminating competition.

A brief description of the more important combinations of the period will indicate the extent to which elimination of competition was taking place. In the nineties the New York, New Haven & Hartford had obtained control of all lines in southern New England, and the Boston & Maine had built up another system in northern New England. In 1907 the New Haven acquired practically a controlling interest in the Boston & Maine. The two systems had been separated by the Boston & Albany, extending westward across Massachusetts. In 1911 an arrangement was made whereby the profits or losses of the Boston & Albany were to be shared equally by the New York Central and the New Haven. The New Haven had also acquired control of the Rutland Railroad, and it had earlier obtained control of the Central New England, and the New York, Ontario & Western, giving it access to the anthracite coal fields of Pennsylvania and an outlet to the Great Lakes. Numerous electric railways in New England and steamship lines operating along the coast were also brought into the system, thus giving the New Haven a practical monopoly.

In Trunk-Line Territory two large systems had grown up prior to

³⁰ Pelley, J. J., *Motor Bus and Motor Truck Competition* (an address, 1932).

³¹ McFarland, Walter R., "Unification of Carriers under the Interstate Commerce Act," 9 *I.C.C. Practitioners' Journal* 325, 1912.

³² Schotter, H. W., *The Pennsylvania Railroad Company* (Philadelphia, Allen, Lane & Scott, 1927), p. 438.

1900. These were the New York Central and the Pennsylvania. Between 1900 and 1902 the Pennsylvania bought a large amount of stock in the Baltimore & Ohio, the Chesapeake & Ohio, and the Norfolk & Western. The New York Central also had a large interest in the Chesapeake & Ohio. The Reading Railroad and the Central Railroad of New Jersey came into the group when the Reading Company, controlling both of these railroads, was acquired partly by the Baltimore & Ohio and partly by a subsidiary of the New York Central. Many smaller lines in Trunk-Line Territory were held individually or jointly by the New York Central and the Pennsylvania or their subsidiaries. These arrangements left the New York Central and the Pennsylvania in control of the lines in eastern territory.

In Southern Territory the Morgan financial interests acquired the Southern Railway and the Atlantic Coast Line-Louisville & Nashville system. The latter system was effected in 1902 by the acquisition of over 300,000 shares of Louisville & Nashville stock by the Atlantic Coast Line Railroad Company. Numerous small lines were brought under the control of the two systems, or were jointly controlled by them. This arrangement eliminated serious competition in the South.

In the West there were numerous combinations during this period, but the most striking development was the attempt of E. H. Harriman to monopolize the transcontinental routes. The Union Pacific, which had come under the control of Harriman, controlled the Oregon Short Line and the Oregon Railroad and Navigation Company. In 1901 the Union Pacific acquired a large stock interest in the Southern Pacific which, in turn, controlled both the Central Pacific Railroad and the Pacific Mail Steamship Company. Later the Union Pacific acquired a half-interest in the San Pedro, Los Angeles & Salt Lake, and about 13 percent of the stock of the Santa Fe. The stock held in the latter was far short of a controlling interest, but was enough to prevent serious competition. To the north of the Union Pacific system lay the Hill lines—the Great Northern and the Northern Pacific. In 1901 these two roads had purchased about 97 percent of the stock of the Chicago, Burlington & Quincy Railroad. Harriman attempted at about this time to obtain control of the Northern Pacific. He failed in this attempt, and in 1902 the Great Northern and the Northern Pacific were brought together by the creation of the Northern Securities Company—a holding company which exchanged its stock for the shares of the Great Northern and the Northern Pacific. Harriman, because of his large holdings of Northern

Pacific stock, became a large stockholder in the Northern Securities Company. The result of these various transactions was to bring the transcontinental lines under Harriman's control or influence and to prevent serious competition.

LEGAL STATUS OF COMBINATIONS

These railroad combinations were viewed with alarm by the public, which still relied upon competition for protection against excessive rates. In 1907 the Interstate Commerce Commission, reporting on the combinations effected by Harriman, said, "Competition between railways as well as between other industries is the established policy of the nation."³³ At that time about forty States had laws or constitutional provisions prohibiting the combination of competing lines. It was not strange that the Sherman Anti-Trust Act was invoked in an effort to break up the railroad monopolies. There followed a series of prosecutions by the Department of Justice which destroyed, in part, some of the combinations formed during the period. The more important of these decisions deserve mention. In 1904 the United States Supreme Court required the dissolution of the Northern Securities Company, which had effected the combination of the Great Northern and the Northern Pacific railways.³⁴ In the dissolution of the company, the assets, consisting of Northern Pacific and Great Northern shares, were distributed ratably to the shareholders of the Northern Securities Company. This meant that for a time at least the same stockholders would control both railroads. It cannot be said, therefore, that the dissolution restored competition between the two systems. In 1912 the Supreme Court held that the ownership by the Union Pacific of 46 percent of the stock of the Southern Pacific also violated the Anti-Trust Act.³⁵ In a subsequent proceeding the Court refused to permit the Union Pacific to distribute its Southern Pacific shares to its stockholders because it would leave the Union Pacific shareholders in control of both roads.³⁶ In 1922 a further dissolution of the Harriman combination was required by breaking up the control of the Central Pacific by the Southern Pacific.³⁷ The influence of the anti-trust laws was shown in the dissolution of the New Haven

³³ *Consolidations and Combinations of Carriers*, 12 I.C.C. 277, 305 (1907).

³⁴ 193 U.S. 197.

³⁵ 226 U.S. 61.

³⁶ 226 U.S. 470 (1913).

³⁷ 259 U.S. 214 (1922). This decree was never carried out because the Southern Pacific obtained permission of the Interstate Commerce Commission to retain control of the Central Pacific under the provisions of the Transportation Act of 1920.

monopoly in New England. Threatened prosecution resulted in an agreement between the New Haven and the Department of Justice whereby the New Haven surrendered control of the Boston & Maine, and disposed of its holdings of stock in various trolley lines and steamship companies.

In some of the arguments before the Court, the wisdom of trying to enforce competition between carriers was questioned, if not seriously condemned, but the Court was disposed to consider this as a question for Congress to settle. In the Northern Securities case the Court said: "Whether the free operation of the normal laws of competition is a wise and wholesome rule for trade and commerce is an economic question which this court need not consider or determine. Undoubtedly, there are those who think that the general business interests and prosperity of the country will be best promoted if the rule of competition is not applied. . . . Be all this as it may, Congress has, in effect, recognized the rule of free competition by declaring illegal every combination or conspiracy in restraint of interstate and international commerce. As in the judgment of Congress the public convenience and the general welfare will be best subserved when the natural laws of competition are left undisturbed by those engaged in interstate commerce, and as Congress has embodied that rule in a statute, that must be, for all, the end of the matter, if this is to remain a government of laws, and not of men."³⁸

THE CLAYTON ACT, 1914

In addition to the Sherman Anti-Trust Act Congress has enacted other measures which relate to railroad combinations. One of these was the Clayton Act of 1914. Section 7 of the Clayton Act provides "That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or to create a monopoly in any line of commerce." Another section of the Act prevents the acquisition of the stock of competing corporations by holding companies. Under the Clayton Act, the Interstate Commerce Commission has compelled a number of companies to divest themselves of stock

³⁸ 193 U.S. 197, 337-338 (1904).

in other corporations. In 1929, the Baltimore & Ohio, the New York Central, and the Nickel Plate were ordered to dispose of stock of the Wheeling & Lake Erie.³⁹ In 1930, the Baltimore & Ohio was also ordered to dispose of stock of the Western Maryland,⁴⁰ and the Pennsylvania Company and the Pennsylvania Railroad Company to divest themselves of their holdings of the stock of the Lehigh Valley.⁴¹ The prohibitions of the Clayton Act do not apply when holdings of stock are for investment only, and not for control.

PROHIBITION OF INTERLOCKING DIRECTORATES

A provision in the Transportation Act of 1920 prohibits interlocking directorates among railroads.⁴² The section provides that "After December 31, 1921, it shall be unlawful for any person to hold the position of officer or director of more than one carrier, unless such holding shall have been authorized by order of the Commission, upon due showing, in form and manner prescribed by the Commission, that neither public nor private interests will be adversely affected thereby." In administering this provision of the law, the Commission has adopted the policy of denying applications where there is substantial competition between the carriers.⁴³

APPRAISAL OF THE POLICY TOWARD COMBINATION

Prohibiting the combination of competing railways is open to the same criticism and justification as the policy toward pooling agreements. The policy was based on the mistaken belief that competition between railroads was desirable. At the same time the public can hardly be criticized for refusing to surrender the protection afforded by competition when the powers of regulatory bodies over railroad rates and practices were insufficient to prevent the exercise of monopoly power. This was particularly true in the last decade of the nineteenth century and the first of the twentieth when the system of regulation was weak. The United States Supreme Court remarked in 1896, when it blocked a combination of the Great Northern and the Northern Pacific as con-

³⁹ 152 I.C.C. 721; 156 I.C.C. 607.

⁴⁰ 160 I.C.C. 785; 183 I.C.C. 165.

⁴¹ 169 I.C.C. 618. In this case the Commission's order was set aside by the courts, 66 F. (2d) 37 (1933); 291 U.S. 651 (1934).

⁴² Paragraph 12, sec. 20a.

⁴³ *Annual Report*, 1922, p. 33. See also *Interlocking Directors*, *St. Louis Southwestern & Chicago, Rock Island & Pacific*, 145 I.C.C. 23, 24 (1928); and *Application of Leonor F. Loree*, 145 I.C.C. 521, 528 (1928).

trary to the laws of Minnesota, that public regulation alone would be "but a feeble protection against the monopoly thus created if the combination were effected."⁴⁴ As regulatory control over railroads developed there came to be less reason for maintaining this attitude. This undoubtedly explains the relaxation of restrictions on combination after 1920.

MODIFICATION OF POLICY TOWARD COMPETITION IN 1920

The historic policy toward competition and combination was modified by the Transportation Act of 1920. This Act, as we have elsewhere shown, legalized pooling agreements when approved by the Commission, and endeavored to bring about the consolidation of railroads into a limited number of systems, and provided for the exemption of the carriers from the anti-trust laws, State and Federal, in so far as was necessary to effect any combination authorized by the Commission. The new policy has often been hailed as a reversal of the previous policy.⁴⁵ As a matter of fact the policy was not reversed. Pooling is permitted, to be sure, but only when it does not "unduly restrain competition"; and the requirement that competition be preserved "as fully as possible" was put foremost in the instructions to the Commission for drawing up a plan of consolidation. It was clearly the intent of Congress that the limited number of systems to be created were to be competitive systems.⁴⁶

The qualified legalization of pooling in 1920 has had little practical effect. To date, only a few applications for permission to pool have come before the Commission. The most important of these authorizations have related to the operation of joint passenger trains and the pooling of receipts therefrom.⁴⁷ The pooling of freight has been

⁴⁴ *Pearsall v. Great Northern Ry. Co.*, 161 U.S. 646 (1896).

⁴⁵ See Moore, S. W., "Our Lagging Railway Mergers," 15 *Virginia Law Review* 743 (1929); McDonough, J. B., "Consolidation of Railroads," 16 *Virginia Law Review* 149 (1929); Jones, E., "Status of Railroad Problems," 219 *North American Review* 592, 598 (1924); Hines, Walker D., "The Public Interest in Railroad Unification and Consolidation," 13 *Proceedings of the Academy of Political Science* 329 (1929).

⁴⁶ For a discussion of Congressional intent, see Green, W. C., *Preliminary Report of Study of Railroad Consolidations and Unifications*, 71st Cong., 3d sess., Part I (1931), pp. 15-24.

⁴⁷ *Puget Sound-Portland Joint Passenger-Train Service*, 96 I.C.C. 116 (1925); 128 I.C.C. 149 (1927), 167 I.C.C. 308 (1930), 169 I.C.C. 244 (1930), 194 I.C.C. 426 (1933), 218 I.C.C. 239 (1936); *Twin Cities-Head of Lakes Joint Passenger-Train Service*, 107 I.C.C. 493 (1926), 112 I.C.C. 403 (1926), 132 I.C.C. 413 (1927), 161 I.C.C. 1 (1930), 237 I.C.C. 381 (1940), *Pooling Passenger Train Revenues and Service*, 194 I.C.C. 430 (1933), 220 I.C.C. 659 (1937); 223 I.C.C. 343 (1937); 243 I.C.C. 765 (1941).

authorized in a few instances,⁴⁸ but such pooling agreements are not common.

REGULATORY CHECKS ON COMPETITION

Thus far in our discussion of checks on competition we have referred to those devised by the railroads themselves. Regulation, however, imposes certain checks on free competition.

In the first place, the fact that rates must be published, and cannot be changed except after thirty days' notice, prevents active competition in rates of the sort that was common in the seventies when rates might fluctuate from day to day or week to week. Legislation against discrimination provides another deterrent to competition, for rate reductions often take the form of concessions and rebates to shippers wherever this is necessary to hold traffic to a given line. Similarly the Long-and-Short-Haul Clause, with its restrictions on the reduction of rates at competitive points without similar reductions at intermediate points, has deterred the railroads from rate cutting. To some extent the same may be said of Section 3 with its broad prohibitions of undue preference and prejudice. The enactment, in 1920, of the provision which gives the Interstate Commerce Commission power to prescribe minimum rates created another regulatory check on competition. This provision was intended to prevent disastrous rate cutting. The Commission had pointed out the need for this power as early as 1893.⁴⁹

Another important check upon competition is found in the provisions of the Act of 1920 which give the Interstate Commerce Commission control over new construction by railroad companies.⁵⁰ In the period when the railroad net was being expanded in the United States there was little restriction on new construction. A few States had found it desirable to prevent indiscriminate railway building, but generally speaking the attitude of the public was: The more railroads, the better. Railroads were often built for the purpose of selling them to a competing line, or they were constructed for the profits to be derived from construction rather than from successful operation. Even when they were undertaken with a view to profits of operation, strategic considera-

⁴⁸ *Division of Traffic Between Gulf & Northern Ry. and Connections*, 74 I.C.C. 444 (1922); and *Joint Operation by Northern Pacific & Soo Ry. Companies*, 154 I.C.C. 279 (1929), 187 I.C.C. 800 (1932); *Pooling Ore Traffic in Wisconsin & Michigan*, 201 I.C.C. 13 (1934); 210 I.C.C. 599 (1935), 219 I.C.C. 285 (1936).

⁴⁹ *Annual Report*, 1893, pp. 38-39; 220-223.

⁵⁰ Pp. 243-244, *supra*.

tions arising from struggles with competing lines often dictated the expansion program without consideration of economic need. Two examples will illustrate the point. The construction of the Western Pacific Railroad from Salt Lake City to San Francisco in the years 1905 to 1911—a line which followed nearly the same route as the Central Pacific—was a project not justified by available traffic. It was projected by the Gould interests, controlling the Denver & Rio Grande and the Missouri Pacific railroads, and was undertaken for the purpose of giving that system an outlet to the Pacific Coast which would be independent of the lines controlled by E. H. Harriman. The line cost over \$79,000,000, and although necessary for the success of the proposed Gould transcontinental system was not economically justified at the time and resulted in the wrecking of the companies which had attempted to finance it.⁵¹ Another illustration is found in the construction of the Puget Sound extension of the Chicago, Milwaukee & St. Paul Railway after 1905. The failure of the St. Paul in 1925 was due in large measure to this expansion. The extension from the Missouri River to the Pacific Coast, costing more than \$250,000,000, was not justified from an economic point of view as there was an excess of transcontinental rail facilities at the time, and the country did not develop fast enough to support all the lines. But from the point of view of the strategy of the situation the project seemed essential, for without it the St. Paul was likely to be bottled up by the expansion of other railroad systems.

Canada has suffered even worse than the United States from encouraging the construction of competing railway lines. Stimulated by government subsidies and a policy of encouraging competition, Canada greatly overbuilt her railway system. Even in recent years when competition has been confined to the two great systems—the Canadian Pacific and the Canadian National—there has been unnecessary construction. The Royal Commission on Railways and Transportation in Canada, which made its report in 1932, found that from 1923 to 1931 the two great systems had spent in the construction and acquisition of branch lines over \$162,000,000 and had increased their mileage by over 5,000 miles. The Royal Commission estimated that probably one-third of this expenditure could have been avoided by a policy of cooperation.⁵² The Commission recommended that "conditions be imposed that will make impossible a repetition of the rivalry in the extension of railway

⁵¹ *Denver & Rio Grande Investigation*, 113 I.C.C. 75 (1926).

⁵² *Report*, pp. 19-20.

mileage that marked the period from 1923 to 1931."⁵³ Experience has everywhere demonstrated the necessity for a check on competitive railroad building. The Transportation Act of 1920 recognized this need.

RAILROAD COMPETITION TODAY

It is sometimes said that competition in railroad rates no longer exists, and that only competition in service remains. In a sense this is true, but it is not wholly true. Railroad rates possess a degree of stability not known in the competitive days of the seventies and eighties. Railroads do not seek traffic by indiscriminately cutting rates, or by granting concessions and rebates to every shipper that is in a position to bargain for preferential treatment. But as Professor Daniels pointed out, ". . . to argue that stabilized rates . . . evidence the non-existence of competition is analogous to saying that physical bodies in equilibrium argue the absence of the law of gravitation."⁵⁴ Competition, as we have shown in a previous chapter, greatly modifies the rate structure. The all-pervading influence of competition on rates will be further demonstrated in the chapters on discrimination between places and on long-and-short-haul discrimination. Where competition thus modifies rate structures it very often leads to wasteful transportation. Goods are hauled by circuitous routes; distant producers invade market areas that might be supplied from nearer sources of supply; and actual cross-hauling may take place on a large scale. It was once said that on the New York, New Haven & Hartford Railroad, for instance, a train-load of bananas from New York to Boston sometimes meets a train-load of bananas from Boston to New York.⁵⁵

COMPETITION IN SERVICE

Competition in service is generally held to be desirable although the necessity for limiting competition in rates has long been accepted. On the affirmative side it can be said that the struggle for traffic operates strongly and more effectively than the hand of regulation to bring about adequate and efficient transportation service and improvements in facilities. Railroads have often shown a genuine interest in the development of the communities which they serve. But there is another side of

⁵³ *Ibid.*, p. 21.

⁵⁴ "Economic Purposes and Limitations of Consolidation," 14 *American Economic Review* (supplement), 43, 47 (1924). •

⁵⁵ For many illustrations of the wasteful transportation resulting from railroad competition, see Ripley, W. Z., "Economic Wastes in Transportation," 21 *Political Science Quarterly* 381 (1906).

the picture. Competition in rates and competition in service are not unlike. In the one case, competition results in the giving of a certain service at a less price; in the other, it results in giving more service at the same price. Either may adversely affect the revenues of the carrier. Competition in service has often led to the unwarranted extension of privileges and services that deplete the revenues of the railroads. It has often led to wasteful capital expenditures through the construction of duplicating facilities. Illustrations of the wastes of competition are easy to find. The investigation of the Interstate Commerce Commission into allowances and services to industrial railways in 1914 revealed startling wastes due to competition of railroads for the traffic originating on industrially controlled railways. These allowances were granted the industrial railways on the theory that they were performing services for the industries which the line-haul carriers could be required to perform, and which therefore entitled them to remuneration by the trunk-line carriers. As a matter of fact, the services were not usually such that they could have been required of the railroads. During the year ending June 30, 1912, the Pennsylvania Railroad paid over one million dollars in divisions out of the rates to ten industrial railways connected with the steel plants on its lines. The New York Central's western lines paid to twelve such industrial railways an aggregate of over \$660,000; the Baltimore & Ohio paid to thirteen industrial lines the sum of \$530,000.⁵⁶ In addition to these allowances for fictitious services the railroads in 1911 performed for a single steel industry, the Republic Iron and Steel Company at Youngstown, Ohio, free spotting services on 75,134 cars at a cost of \$104,329.62.⁵⁷ The wastes of competition may take still other forms. One investigation of the Commission showed instances in which railroads had paid excessive prices for materials and supplies purchased from shippers who were in a position to furnish the railway with traffic, a practice which the Commission condemned as extremely unfortunate and burdensome because it causes "a shifting rather than an increase in traffic," and which therefore "succeeds only in making the handling of existing traffic more expensive."⁵⁸ Waste in capital expenditures as a result of carrier competition is shown by the report of the Interstate Commerce Commission in an investigation into the construction of produce terminals at Philadelphia and Buffalo. In 1926 the

⁵⁶ *Industrial Railways Case*, 29 I.C.C. 212, 214 (1914).

⁵⁷ *Ibid.*, p. 215.

⁵⁸ *Reciprocity in Purchasing and Routing*, 188 I.C.C. 417, 433-434 (1932).

Baltimore & Ohio and the Reading railroads jointly opened a produce terminal in Philadelphia costing approximately \$3,100,000. Not to be outdone, the Pennsylvania Railroad opened a competing terminal which cost about \$6,500,000. Both were used at less than half their capacity and either alone would have been adequate for the needs of the city.⁵⁹ In Buffalo, the Erie and Nickel Plate railroads engaged in a contest with the New York Central to provide terminals. The former spent about \$6,700,000 and the New York Central about \$2,700,000 in providing rival facilities.⁶⁰ Competition between railroads at New York and other ports also resulted in the furnishing of warehousing service by carriers for shippers at nominal charges which resulted in large losses to the railroads and constituted a drain upon their resources.⁶¹

An attempt to eliminate many of the wastes of competition was undertaken in the United States by the Railroad Administration when the Government was operating the railroads during World War I. During this period traffic was routed over the shortest routes, terminals were unified, competitive passenger trains were eliminated or "staggered," ticket offices were consolidated, solicitation of traffic was discontinued, and advertising was abandoned. With the return of the railroads to their owners in 1920 many of the wasteful practices were revived. The acute depression which began in 1929 called attention to many of these wastes again. The primary purpose of the Emergency Railroad Transportation Act of 1933 was to enable the railroads through cooperative effort to eliminate many of these practices. Recalcitrant carriers were to be brought into line through the powers given the Federal Coordinator, and exemption from anti-trust laws was granted in so far as necessary to permit concerted action authorized or required by the Coordinator.

POLICY OF THE INTERSTATE COMMERCE COMMISSION TOWARD COMPETITION

Since confusion and uncertainty exist concerning the advisability of adhering to competition in the railroad field or of abandoning it in favor of monopoly, it is not out of place to inquire into the attitude of the Commission on the question as expressed in its decisions and as followed in the administration of certain provisions of the law.

In administering the Clayton Act the Commission has little discre-

⁵⁹ *Duplication of Produce Terminals*, 188 I.C.C. 323, 324 (1932).

⁶⁰ *Ibid.*, pp. 333-334.

⁶¹ *Propriety of Operating Practices—New York Warehousing*, 198 I.C.C. 134 (1933); 216 I.C.C. 291 (1936); 220 I.C.C. 102 (1937).

tion. The policy of Congress to prevent the acquisition of stock of one railroad by a competing road is clear. The Commission's duty is merely to ascertain whether the acquisition "might substantially lessen competition." Consistent also with Congressional intent is the practice of the Commission in administering the provisions of the law relating to interlocking directorates. Here, as we have already pointed out, the Commission prevents competing railroads from having common directors. More insight into the Commission's views on competition can be obtained from its administration of three other provisions of the Interstate Commerce Act, namely, the minimum rate provision, the provisions relating to consolidations or acquisitions of control of one carrier by another, and the section requiring the Commission's approval of new construction.

MINIMUM RATE CASES

As will be pointed out in subsequent chapters, the right of the carriers to reduce a rate below the level of maximum reasonable rates has always been recognized by the Commission.⁶² The Commission is not likely to interfere with this right except when the reduced rates are so low as to burden other traffic, or when they result in undue preference and prejudice, or when interference is necessary to prevent rate wars or an undermining of a rate structure which was designed to yield the carriers an adequate income.⁶³ The Commission may prescribe specific minimum rates, or it may, under the rate suspension power, find proposed reductions not justified.

The power of the Commission to exercise its minimum rate powers in the prevention of rate wars or in the protection of a reasonable rate structure has been upheld by the courts. In 1928 a Federal court said: "... since the passage of the Transportation Act of 1920, the Commission has the right to prescribe minimum rates, and we agree with the Commission that a construction of the law is too narrow which limits its right to prescribe such rates to cases where the rates proposed are unreasonable per se, or are so low as to cast a burden on other traffic. It has the right to prescribe minimum rates also to prevent ruinous rate

⁶² See chs. XIX and XXXIV.

⁶³ See *Salt Cases of 1923*, 92 I.C.C. 388 (1924); *Grain and Grain Products*, 115 I.C.C. 153, 164 (1926); *Lake Cargo Coal*, 139 I.C.C. 367, 393 (1928); *Cement from Linwood*, 140 I.C.C. 579 (1928); *Export Grain, C. F. A. Territory to North Atlantic Ports*, 235 I.C.C. 655 (1940). For a further analysis of minimum rate cases by the author: see National Resources Planning Board, *Transportation and National Policy* (Washington, U.S. Government Printing Office, 1942), pp. 108-110.

wars and to guarantee reasonable earnings, not only to the carriers affected, but also to competing carriers, who may labor under a higher cost of doing business."⁶⁴

The Commission, however, is rather cautious about exercising the minimum-rate power. In 1926 the Commission said: "We believe . . . that this power should be sparingly exercised and only in cases where it clearly appears that its exercise is necessary in order that substantial public injury may be avoided."⁶⁵ In a later case the Commission said: "We have exercised our power to prescribe minimum rates rarely and only under special circumstances."⁶⁶ This conservatism in exercising the power has occasionally divided the Commission.⁶⁷ Although the Commission will use this power when clearly justified, it is hesitant about denying the public all benefits of competition in rates.

CONSOLIDATION AND CONTROL CASES

The attitude of the Commission toward the maintenance of competition is shown in some of the acquisition of control cases that have come before it. In these cases the Commission's policy has undoubtedly reflected Congressional policy as expressed in the provisions of the Transportation Act of 1920. It will be recalled that in the "plan" of consolidation which was to be drawn up by the Commission competition was to be preserved as fully as possible. Acquisitions of control short of technical consolidation, however, were not, under the 1920 Act, subject to any requirement that competition be preserved, but the Commission recognized that Congress had declared itself in favor of preserving competition between railroads.⁶⁸ Applications have been denied on the ground that competition would be eliminated.⁶⁹ On the other hand, applications have been authorized that involved the elimi-

⁶⁴ *Anchor Coal Co. v. United States*, 25 F. (2d) 462, 471-472 (1928). See also *Jefferson Island Salt Mining Co. v. United States*, 6 F. (2d) 315 (1925); and *Youngstown Co. v. United States*, 295 U.S. 476 (1935). For limitations on this power see *United States v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 294 U.S. 499 (1935).

⁶⁵ *Sugar Cases of 1922*, 81 I.C.C. 448, 472 (1926).

⁶⁶ *Iron and Steel Articles*, 155 I.C.C. 517, 567 (1929). For another case in which the Commission refused to exercise this power, see *Ex-Lake Iron Ore from Chicago to Granite City*, 123 I.C.C. 503 (1927).

⁶⁷ See Commissioner Campbell's dissent in *Sugar Cases of 1922*, 81 I.C.C. 448, 479 (1923).

⁶⁸ The Commission's position on this point was made clear in *Control of Central Pacific by Southern Pacific*, 76 I.C.C. 508, 516 (1923), and in *Control of Alabama & Vicksburg Rys. and Vicksburg, Shreveport & Pacific Ry.*, 111 I.C.C. 161, 170 (1926).

⁶⁹ *Control of Virginian Railway*, 117 I.C.C. 67 (1926).

nation of competition to some extent.⁷⁰ One of the outstanding examples of the latter was the authorization of the combination of the Great Northern and the Northern Pacific although the Supreme Court had found such a combination illegal under the anti-trust laws.⁷¹ This decision divided the Commission and aroused considerable public protest. Another instance in which the Commission authorized a combination formerly held in violation of the Anti-Trust Act was in permitting the control of the Central Pacific by the Southern Pacific.⁷² The position of the Commission in authorizing such combinations was shown in the Nickel Plate unification case where the Commission said: "A greater amount of actual and effective competition in service may be assured by a limited number of well-articulated systems than by a greater number of systems less complete."⁷³ In another case the Commission said: "A certain amount of interference with competition is involved in nearly every railroad combination that may be formed, but if this interference is not unduly great, if effective competition is preserved at all important points, and particularly if the tendency of the combination is to increase and promote other competition to compensate for that destroyed or lessened, the combination may well merit our approval, if it is otherwise shown to be in the public interest."⁷⁴ To hold that any elimination of existing competition must require the denial of an application would prevent us from obtaining any of the benefits sought in railroad consolidations and combinations. Whether the removal, in 1940, of the provision in the law relating to a "plan" of consolidation, and with it the Congressional directive that competition shall be preserved as fully as possible, will affect the policy of the Commission in consolidation and control cases cannot be determined at this time.

CONTROL OF NEW CONSTRUCTION

Congress clearly intended to put some check upon the building of competitive railroads by enacting the provision in the law which requires a certificate of convenience and necessity before new lines or extensions may be built. The Commission will not authorize new construction

⁷⁰ *Control of Louisiana and Arkansas Ry. Co.*, 150 I.C.C. 477, 487 (1929).

⁷¹ *Great Northern Pacific Ry. Co. Acquisition*, 162 I.C.C. 37 (1930). This combination was never effected because of the inability or unwillingness of the carriers to comply with certain conditions required by the Commission.

⁷² 76 I.C.C. 508 (1923).

⁷³ *Nickel Plate Unification*, 105 I.C.C. 425, 440 (1926).

⁷⁴ *Unification of Southwestern Lines*, 124 I.C.C. 410, 417 (1927).

when the only or principal effect is to divert traffic from existing lines.⁷⁵ The Commission has specifically stated that there is no good reason why a railroad should be constructed for the purpose of taking traffic away from another "unless its service is inadequate or it is unwilling to publish rates which will enable the traffic to reach destinations in all available territory on reasonable terms."⁷⁶

At the same time the Commission does not recognize that the first carrier entering a territory has a monopoly on that area, and that other carriers must be excluded.⁷⁷ This is consistent with the position of the courts.⁷⁸ The Commission has stated that although one of the purposes of paragraph 18 of Section 1 was "to protect existing carriers against unnecessary and wasteful competition by rival carriers," still "it was clearly not the intention of Congress by these provisions to put a stop to all competitive railroad building."⁷⁹ If a new line or an extension will perform a useful service, serve new communities, or shorten routes, the mere fact that it will result in diverting traffic from other railroads is not sufficient to prevent the Commission's authorization.

In a number of cases the Commission has permitted the extension of lines into territory theretofore served exclusively by other lines. In most if not all cases of this sort the new lines would improve transportation service in the region, and had some justification other than the introduction of competition, but the Commission nevertheless spoke approvingly of the increased competition that would result. In a case authorizing a railroad to build into territory served by the Great Northern, the Commission said: "It is probable that the competition afforded would stimulate the Great Northern to further improve its service. Competition, within reason, rather than monopoly, is in the public interest."⁸⁰ Five commissioners dissented. Again, two years later, in another case which authorized a carrier to invade the territory served by another line, the Commission further stressed its belief that competition rather than monopoly was desirable.⁸¹ In the latter case, Commis-

⁷⁵ *Texas & Pacific Northern Ry. Co. Proposed Construction*, 184 I.C.C. 55 (1932).

⁷⁶ *Elizabeth Southern Ry. Proposed Construction*, 166 I.C.C. 105, 114 (1930).

⁷⁷ *Oregon Electric Railway Construction*, 189 I.C.C. 262 (1932).

⁷⁸ *Pennsylvania Railroad Co. v. United States*, 40 F. (2d) 921 (1930).

⁷⁹ *Construction by Fort Worth & Denver South Plains Ry.*, 117 I.C.C. 233, 275 (1926).

⁸⁰ *Construction of Line by Wenatchee Southern Ry. Co.*, 96 I.C.C. 237, 257 (1924). For other cases in which the desirability of maintaining competition is expressed, see *Construction by San Antonio & Arkansas Pass Ry.*, 111 I.C.C. 483 (1926); *Construction by Virginian & Western Ry.*, 145 I.C.C. 167 (1928).

⁸¹ *Construction of Railroad Lines in Eastern Oregon*, 111 I.C.C. 3 (1926).

sioner Meyer disagreed with what the majority had said about the desirability of competition. "The introduction of competition in a different form and in a territory where it does not now exist to the extent which some regard as desirable is an elusive and theoretical consideration upon which much emphasis is laid in the report but which railroad development everywhere in this and in other countries has demonstrated to be unsound."⁸² Commissioner Woodlock, in the same case, observed that competition implies the existence of more facilities than are actually needed to move the traffic, and that if the railroads as a whole are to receive an adequate return from rates, the construction of unnecessary facilities increases the burden on the rate-paying public."⁸³

CONCLUSIONS ON I.C.C. POLICY

From this review of the policy and utterances of the Commission in cases that involve the question of competition or monopoly, it appears that the Commission believes in maintaining some degree of competition. It cannot be said with certainty to what extent the Commission's policy is based on its belief in the desirability of competition and to what extent its policy represents an effort to carry out a policy expressed in legislation by Congress. Individual commissioners have occasionally expressed the view that the attempt to maintain competition between railroads is unsound.

RAILROADS AND THE SHERMAN ANTI-TRUST ACT

It has been mentioned in this chapter that the Sherman Anti-Trust Act has been applied to the railroads, and also that the Interstate Commerce Commission has the power to exempt the railroads from the Sherman Act in some instances. It is desirable, therefore, that the relation of the railroads to the Sherman Act be considered more carefully at this point.

In the first place, the decisions of the Supreme Court in the Trans-Missouri Freight Association and the Joint Traffic Association cases⁸⁴ still stand. The view has been expressed that these decisions may not be controlling now because the powers of the Interstate Commerce Commission over rates have been greatly broadened since those decisions were handed down, and also because the requirements of the amended

⁸² *Ibid.*, p. 49.

⁸³ *Ibid.*, p. 51.

⁸⁴ P. 314, *supra*.

Interstate Commerce Act seem to require some agreement and concerted action by the carriers in making rates.⁸⁵ The Supreme Court of the United States has more recently held, however, that rate-fixing combinations by carriers "have no immunity from the anti-trust laws."⁸⁶

Although formal rate agreements are apparently still unlawful under the Sherman Act, the extent to which the normal activities of rate bureaus may be in contravention of the Sherman Act is not clear. As elsewhere pointed out, the rate bureau method of rate making represents collective rate making by the carriers, and may in itself constitute a violation of the Sherman Act. The Department of Justice so contends.⁸⁷ Since joint action by the carriers in rate making seems necessary if a reasonable, orderly, and non-discriminatory freight-rate structure is to be maintained, it has been recommended that rate bureaus be legalized, but that at the same time they be brought under the control of the Interstate Commerce Commission, and that in their functioning the right of independent action by individual carriers be scrupulously observed.⁸⁸ Legislation to this effect was under consideration by Congress from 1943 to 1946 but was not enacted.⁸⁹

Pooling agreements, as elsewhere noted,⁹⁰ may be approved by the Interstate Commerce Commission, and when so approved, are exempt from the provisions of the anti-trust laws.

Consolidations or unifications of railroads, we have also noted, have been exempt from attack under the anti-trust laws since 1920, if they are approved by the Interstate Commerce Commission.⁹¹

Agreements among carriers which have the effect of limiting or restricting competition in service are probably in violation of the Sherman Act. Exemption of such agreements from the anti-trust laws was provided under certain conditions by the terms of the Emergency Transportation Act of 1933. It will be recalled that the purpose of that Act was to encourage railroads to eliminate competitive wastes and intro-

⁸⁵ Board of Investigation and Research, *Rate-Making and Rate-Publishing Procedures*, 78th Cong., 1st sess., House Doc. No. 363 (1944), pp. 12-17.

⁸⁶ *Georgia v. Pennsylvania R. R. Co.*, 324 U.S. 439, 457 (1945).

⁸⁷ See testimony of representatives of the Department of Justice in *Hearings before the Senate Committee on Interstate Commerce on S. 942, 78th Cong., 1st sess.* (1943).

⁸⁸ See Board of Investigation and Research, *op. cit.*, pp. 86-87; Interstate Commerce Commission, *Annual Report, 1944*, p. 31.

⁸⁹ For committee reports on the most recent of these legislative proposals see 79th Cong., 1st sess., House Report No. 1212 (1945), and 79th Cong., 2d sess., Senate Report No. 1511 (1946).

⁹⁰ P. 320, *supra*.

⁹¹ *Ibid.*, *supra*.

duce operating economies through joint action of various sorts.⁹² The Federal Coordinator had power to approve, or even to force, such action, and his approval carried with it exemption from the anti-trust laws. This power of the Federal Coordinator was practically unused, and the emergency provisions of the 1933 Act are no longer in effect. A suit brought by the Department of Justice against the western railroads in 1944 alleges that various agreements have been made among the western railroads which are in violation of the Sherman Act. Among other things the Department of Justice alleges that agreements were made whereby certain railroads delayed the delivery of perishables to eastern destinations in order to equalize their service with that of the slower routes.⁹³ The Department of Justice also alleges that an agreement had been made to prevent the installation of air-cooling equipment on passenger trains.⁹⁴

The Interstate Commerce Commission has recommended that agreements between railroads should be subject to the supervision and control of the Commission. This would presumably mean that agreements, if approved by the Commission, would be exempt from the anti-trust laws. The Commission's recommendation is based on two considerations. The first is doubt of the practical value of prosecutions under the Sherman Act in preventing objectional agreements, coupled with a belief that a more effective remedy can be found in bringing agreements under the supervision and control of the Commission. The second consideration influencing the Commission to make its recommendation is that a strict application of the Sherman Act might interfere with carrying out the Declaration of Policy in the Interstate Commerce Act, particularly that provision which expresses disapproval of "unfair or destructive competitive practices."⁹⁵ It is evident that the Commission recognizes that competition in service may become wasteful, and that it believes that some agreements to restrict competitive activities may be desirable and in accordance with the National Transportation Policy. The legislation recently proposed to legalize rate bureaus would also legalize agreements between railroads if they are approved by the Commission.⁹⁶

⁹² Pp. 261-262, *supra*.

⁹³ Complaint in Civil No. 246, District Court of the United States for the District of Nebraska, Lincoln Division, *United States v. The Association of American Railroads, et al.* (1944), p. 32.

⁹⁴ *Ibid.*, p. 33.

⁹⁵ *Annual Report, 1944*, p. 33.

⁹⁶ See note 89, *supra*.

TRENDS IN POLICY

The American public has made no definite choice between unrestricted railroad competition, with its attendant wastes, and monopoly, with its attendant dangers. Historically, we began with complete reliance on competition. That policy has been modified, but public sentiment and the law are far from approving a policy which entirely eliminates competition.

The Transportation Act of 1920, as we have seen, evidenced a modification, but not a complete reversal, of the policy of trying to enforce competition between railroads. Suggestions are made from time to time which would move still further in the direction of abandoning competition in the railroad industry. One such proposal, known as the "Prince Plan" of railroad consolidation, called for the grouping of the railroads of the United States into seven systems—two in the East, two in the South, and three in the West. This plan was given special study by the staff of the Federal Coordinator of Transportation, but it was not recommended for adoption.⁹⁷ Commissioner Miller of the Interstate Commerce Commission has suggested that the operation of the railroads of the United States as a single system might be desirable.⁹⁸

In European countries the abandonment of competition in the railroad industry has been more complete than in the United States. The French railroads, for instance, were long ago established into regional systems.⁹⁹ The British railways were consolidated into four systems as a result of the Railway Act of 1921.¹⁰⁰ The four systems appear on the map as regional monopolies with some overlapping, but as a matter of fact there is considerable competition between them.¹⁰¹ A system of regional monopolies does not eliminate competition entirely. This is particularly true if important shipping or receiving points are near the boundary of two areas served by different railways. Market competition, furthermore, can operate with full force under a system of regional

⁹⁷ See *Regulation of Railroads*, 73d Cong., 2d sess., Senate Doc. No. 119 (1934), pp. 21-29. More details of the plan and an analysis of it are published as an appendix to the report, pp. 106-123.

⁹⁸ Address, *Proceedings of the 49th Annual Convention of the National Association of Railroad and Utilities Commissioners*, 1937, p. 25. See also concurring opinion in *Fifteen Percent Case*, 1937-1938, 226 I.C.C. 41, 158.

⁹⁹ See Daggett, S. R., *Principles of Inland Transportation*, rev. ed. (New York, Harper's, 1934), pp. 576-577.

¹⁰⁰ *Ibid.*, pp. 578-581.

¹⁰¹ Sherrington, C. E. R., "Economic and Financial Results of British Railway Consolidations: their Guide to American Policy," 7 *Harvard Business Review* 395 (1929)

monopolies. Consolidation of railroads into a single system would be necessary to eliminate competition completely.

If the railroads are not to be consolidated into a single system, or into a few systems so arranged as to reduce the amount of competition between them, we are still faced with the question of whether active competition between systems shall be enforced by a strict application of the anti-trust laws to prevent agreements and concerted action, or whether such agreements and concerted action may be legalized if kept under the close supervision and control of the Interstate Commerce Commission.

SELECTED REFERENCES

General discussions of competition and combination in the railroad field are W. C. Noyes, *American Railroad Rates* (Boston, Little, Brown & Co., 1905), ch. VI; E. Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. V; S. R. Daggett, *Principles of Inland Transportation*, rev. ed. (New York, Harper's, 1928), ch. XXVIII; S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), chs. XXIV and XXV.

A good discussion of the waste of the competitive system is W. Z. Ripley, "Economic Wastes in Transportation," 21 *Political Science Quarterly* 381 (1906).

The best treatments of ruinous competition are A. T. Hadley, *Railroad Transportation* (New York, Putnam's, 1885), pp. 63-74; E. Jones, *op. cit.*, pp. 91-95; and by the same author, "Is Competition in Industry Ruinous," 34 *Quarterly Journal of Economics* 473 (1920).

There is an immense amount of literature on pooling, but much of it is partisan. The following are among the best treatments, and the approach is impartial although the conclusions are not identical: C. A. Prouty, "Pooling Arrangements from the People's Point of View," 24 *Forum* 446 (1897); A. T. Hadley, "Prohibition of Pooling," 4 *Quarterly Journal of Economics* 158 (1890); W. Z. Ripley, *Railroads: Finance and Organization* (New York, Longmans, 1915), ch. XVIII; United States Industrial Commission, *Report*, vol. 19, pp. 329-348. The most thorough discussion of pooling is in C. S. Langstroth and W. Stiltz, *Railway Coöperation*, Publications of the University of Pennsylvania, Series in Political Economy and Public Law No. 15 (1899). For a description of actual pools see Henry Hudson, "The Southern Railway and Steamship Association," 5 *Quarterly Journal of Economics* 70 (1890); John B. Phillips, "A Colorado Railroad Pool," 5 *University of Colorado Studies* 137 (1908); R. E. Riegel, "The Southwestern Pool," 19 *Missouri Historical Review* 12 (1924); and "The Omaha Pool," 22 *Iowa Journal of History and Politics* 569 (1924).

The combination movement of the nineties is described in the report of the Industrial Commission, vol. 19, pp. 304-322; and in Ripley, *op. cit.*, chs. XIV and XV. Early railroad combination in Eastern Territory is told in *Investigation of Railroads, Holding Companies, & Affiliated Companies*, 76th Cong., 3d sess., Senate Report No. 1182, Part I (1940). The official source for the Harriman combination is the Interstate Commerce Commission report, *Consolidations and*

Combinations of Carriers, 12 I.C.C. 277 (1907). Dissolutions under the Anti-Trust Act are treated in Ripley, *op. cit.*, ch. XVII. The Northern Securities Case is described in detail in B. H. Meyer, *A History of the Northern Securities Case*, University of Wisconsin Bulletin 142 (1906).

For treatment of the Commission's policy in administering Section 5 of the Interstate Commerce Act see S. P. Simpson, "The Interstate Commerce Commission and Railroad Consolidation," 43 *Harvard Law Review* 192 (1929); and I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-A (New York, Commonwealth Fund, 1935), pp. 430-501.

On controlling competitive railroad construction see Sharfman, *op. cit.*, pp. 348-367.

The Coordinator's views on consolidation proposals are found in his various reports, particularly *Regulation of Railroads*, 73d Cong., 2d sess., Senate Doc. No. 119, pp. 21-29; *Fourth Report*, 74th Cong., 2d sess., House Doc. No. 394 (1936), pp. 45-50.

CHAPTER XV

THE RAILROAD RATE LEVEL

IN THE chapter on the theory of railway rates it was pointed out that railroads tend to adjust rates on particular traffic movements in such a way as to obtain the largest possible revenue over direct or out-of-pocket costs. This principle is limited and modified in practice by the necessity of observing some system or consistency in the rate structure, and by the necessity of complying with the provisions of law and orders of regulatory bodies. The principle is also limited by lack of positive knowledge, in many situations, of just what the most profitable rate would be. Notwithstanding these limitations, the principle is applied in a broad way. The adjustment of particular rates in an effort to maximize returns will sometimes result in total railway revenues far in excess of the needs of the carrier. One object of government regulation of railway rates is to prevent such exploitation of the public through rates that are in excess of the revenue needs of the carriers.

Not only must regulation seek to prevent monopoly profits in the railroad industry, but it must at times concern itself with the question of whether railroad earnings are adequate for the maintenance of a satisfactory transportation system and fair to those who have invested capital in the railroad industry. It might be argued that if particular rates have been adjusted in such a way as to maximize carrier revenues there is not much that can be done if the resulting earnings are inadequate. Changes in operating expenses or other costs, however, or changes in the volume of traffic, or in the conditions of demand for transportation service may render the revenues of the railways inadequate to meet operating expenses and to pay a return on invested capital. Under these circumstances a re-examination of rates, and a raising or a lowering of the rate level may become necessary in order to increase railway earnings.

Proceedings which involve efforts to raise or lower rates generally in order to increase or reduce railroad revenues are known as "general rate level cases" or as "revenue cases." In this chapter we are concerned with efforts to set up standards to govern the disposition of cases of this type.

SOURCES OF REVENUE

In a consideration of freight-rate levels it should be pointed out that the railroads derive revenue from various kinds of services which they perform; hence the full burden of supporting the carriers does not fall upon the freight business or upon freight and passenger business combined. In 1940, however, about 82 percent of the revenues of the Class-I railroads was derived from their freight business. Table XV shows the principal sources of revenue of the railroads.

TABLE XV
SOURCES OF OPERATING REVENUES, CLASS-I RAILROADS, 1940¹

Source	Amount	Percent of Total
Freight service	\$3,537,149,646	82.32
Passenger service	419,838,886	9.77
Mail service	101,086,898	2.35
Express	55,642,993	1.30
Transportation of milk	8,798,224	0.20
Switching and transfer	66,991,904	1.56
Dining and buffet	23,428,470	0.55
Hotel and restaurant	3,171,893	0.07
Station, train and boat privileges	3,460,504	0.08
Storage	2,753,841	0.06
Demurrage	7,786,497	0.18
Telephone and telegraph	1,985,666	0.05
Grain elevators	1,348,356	0.03
Power	3,963,263	0.09
Rents of buildings and other property	9,492,249	0.22
Other	49,701,363	1.16
Total operating revenues	\$4,296,600,653	99.99

In addition to the above, the railways receive a considerable non-operating income. This amounted to \$169,067,313 for Class-I line-haul railways in 1940 and consisted largely of interest and dividends on securities held. Income from such sources does not enter into the calculations of the rate level.

RAILROAD EXPENSES

In the long run the revenues received by the railroads must cover operating expenses, taxes, and some sort of a return upon the capital invested. A larger proportion of the gross revenues of a carrier is expended for operating expenses than for a return on capital invested. This is indicated by Table XVI, which shows the proportions of total operating revenues of the railroads which are expended for various purposes.

¹ Computed from Interstate Commerce Commission, *Statistics of Railways in the United States, 1940*.

The amounts expended for operating expenses are controlled largely by economic conditions. This accounts for the fact that there is so little controversy over the matter. Railroad wages are determined by bargaining between the railways and their employees and are presumably not long out of line with the wages paid by other industries for labor of similar grades. During the period from 1920 to 1926, when the Railroad Labor Board was functioning, the public had a voice in the determination of the rate of wages for railroad employees, since the Labor Board included in its membership three representatives of the

TABLE XVI
DISPOSITION OF RAILWAY OPERATING REVENUES OF CLASS-I ROADS, 1940²

Expended for	Percent of Total
Wages and salaries (not chargeable to capital account)	43.2
Locomotive fuel	5.7
Materials, supplies, etc.	16.7
Loss, damage, injuries, insurance, etc.	1.5
Depreciation	4.8
Union dues, equipment, joint facility rentals	3.0
Taxes:	
Payroll	2.7
Other	6.5
Total expenses	84.1
Return on capital	15.9
	100.0

public. Since 1926 the public has had no direct voice in the determination of railroad wages. If we turn to other items of railroad expense, we also see the play of economic forces. The railroads presumably pay market prices for fuel and for materials and supplies. Only occasionally does some question arise regarding the propriety of prices paid by carriers.³

But railway operating expenses are determined not only by the prices paid for materials, supplies, fuel, labor, and other things but also by the efficiency of management and of the workers. The problem of efficiency will be discussed shortly. For the present it is sufficient to say that there is ample statistical evidence of steady improvements in

² Data furnished by Bureau of Railway Economics, Association of American Railroads.

³ See *Construction and Repair of Railway Equipment*, 66 I.C.C. 694 (1922); 66 I.C.C. 727 (1922). There are many other reports in this series of investigations. See also *In the Matter of Reciprocity in Purchasing and Routing*, 188 I.C.C. 417 (1932); Federal Coordinator of Transportation, *Regulation of Railroads*, 73d Cong., 2d sess., Senate Doc. 119 (1934), pp. 68, 69; and also Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4428, *Use and Cost of Railway Fuel and Problems in Fuel Statistics* (Washington, 1944).

the operating efficiency of American railroads,⁴ but the studies of the Federal Coordinator of Transportation in the 1930's indicated that further improvement was possible through cooperative action to eliminate competitive wastes.

TAXES

From the table on page 338 it will be seen that in 1940 the railroads paid out 6.5 percent of their gross revenues for taxes other than payroll taxes. Here is an element which the public might control. In fact, the railroads could be made completely tax exempt if it seemed desirable to do so. There is not much likelihood that this will be done because so many communities derive a considerable portion of their revenue from taxes levied upon railroad property. But in the larger sense, the taxes upon railroads represent a special tax imposed upon the users of the railroads and might be abolished if they made railroad rates too high.

A question might be raised as to whether railroad taxes are borne by the owners of the road or whether they are borne by the shippers through higher freight rates. An examination of the accounting system of the railroads will reveal that taxes are deducted before net railway operating income—the figure which is supposed to be an adequate return—is reached.⁵ This is equivalent to charging taxes to operating expenses, and represents an effort to place the burden of such taxes on the shipping public. In so far as the taxes paid by railroads are general property taxes, this practice is consistent with the generally accepted belief that general property taxes on business enterprises are in large measure shifted to consumers.

The practice of treating railroad taxes as an operating expense, however, is not confined to taxes which are levied as a part of the general property tax. Federal corporation income taxes are treated in the same way; yet the theory of the corporation income tax is that it should be borne by the corporation, and not be shifted to the consumer. To the extent that the railroads are given a rate level which enables them to earn a fair return after Federal corporate income taxes, it would appear that they have succeeded in shifting that tax, along with other taxes, to the users of their services. The Supreme Court of the United

⁴ See Moulton, H. G., and others, *The American Transportation Question* (Washington, Brookings Institution, 1933), ch. VI; and Bureau of Railway Economics, Association of American Railroads, *A Review of Railway Operations in 1944* (Washington, Bureau of Railway Economics, 1945), and similar studies for other years.

⁵ See ch. XXIII.

States has held that all taxes, including the Federal corporation income tax, are deductible as an expense in any computation of the net income which a public utility is entitled to earn.⁶ Although the Interstate Commerce Commission considers that it is bound by these decisions to treat Federal corporation income taxes as an expense, it has refused to follow a similar policy with respect to wartime excess profits taxes, saying: "It is not fair or just that these excess-profits taxes should be shifted through rates to the shipper."⁷

Although, according to Supreme Court rulings, the corporation income taxes must be treated as an expense, there is no reason why a commission should not recognize the tax-free nature of the resulting net income of railway corporations in determining what would constitute a fair rate of return. The Commission did this in *Reduced Rates*, 1922, when it held that a fair rate of return for the railroads would be $5\frac{3}{4}$ percent, and that this tax-free return was substantially equivalent at the time to a return of 6 percent out of which the Federal corporation income tax was payable. "In our view," said the Commission, "railway corporations should, like other corporations, pay their Federal income taxes out of the income, rather than collect it, in effect, from the public in the form of transportation charges adjusted to enable it [them] to retain the designated fair return over and above the tax."⁸

The fact that railroad taxes of all kinds are treated as an operating expense means that an effort is made to shift them to the consumer, but it does not follow that this effort is always successful. If a railroad, or group of railroads, earns less than a fair return, as often happens, the taxes are borne in part at least by the owners. This can be shown by the fact that in such instances a remission of the taxes would not necessarily mean a lowering of transportation rates, but merely that the carriers might now earn a fair return when they did not do so before. Broadly speaking, however, railroad taxes are to a considerable extent shifted to the shipping public, and they constitute an element which enters into the level of rates.

DEPRECIATION

Depreciation took 4.8 percent of the operating revenues of the

⁶ *Galveston Electric Co. v. Galveston*, 258 U.S. 388, 399 (1922); *Georgia Ry. & Power Co. v. Railroad Commission of Georgia*, 262 U.S. 625, 633 (1923).

⁷ *Minnelusa Oil Corp. v. Continental Pipe Line Co.*, 258 I.C.C. 41, 49 (1944).

⁸ 58 I.C.C. 676, 683.

railroads in 1940. This is not a particularly large item, but certain comments about it are desirable.

Depreciation is a relatively constant amount from year to year. This results from the fact that the annual depreciation charges are based on the cost of depreciable property and its estimated service life. In other words, a certain portion of the cost of depreciable property is charged to operating expenses each year until the cost of the unit of property has been recovered. Prior to the introduction of depreciation accounting on the railroads the cost of a unit of property consumed in service was charged to operating expenses when the unit was retired from service. By varying from year to year the amount of property retired a greater degree of flexibility in these charges was possible.

In 1930, in *United Railways v. West*,⁹ the Supreme Court of the United States held that the annual depreciation charge of public utilities should be based on the "present value" instead of on the original cost of the depreciable property. This was contrary to long-established accounting practice. If the railroad accounting regulations had been revamped to comply with the views of the Court, annual depreciation charges would have become less stable. They would rise as the price level rose, and fall as prices declined. It would have been extremely difficult to have calculated the proper depreciation charge, and other difficulties would have appeared. The Supreme Court has subsequently overruled the *United Railways* case on this point,¹⁰ and railway depreciation charges are based on the actual cost of depreciable property, not on estimated replacement costs.

CONTROL OF PROFITS

Railway revenues should be sufficient to pay necessary operating expenses, and a return on the capital invested. A difficulty arises, however, in determining what the "profit" element, or return on capital, should be. General rate level cases, therefore, often appear to be concerned largely with a consideration of "profits" or net railway operating income. The problem, as previously noted, is to prevent exploitation of the public by common carriers, and also to see that railway earnings are adequate.

THE RETURN MUST ATTRACT CAPITAL

Determination of the proper return to be permitted a carrier is

⁹ 280 U.S. 234.

¹⁰ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 606-607 (1944).

essentially an economic problem. As long as private capital is to be relied upon to supply railroad facilities, a return must be permitted sufficient to attract that capital from private investors. It is commonly said that in order to obtain capital, a fair return must be allowed upon the capital already invested in the enterprise. This statement, however, requires some qualification. In so far as railroad capital is of a fixed and specialized sort, irrevocably sunk in the enterprise, a return would not have to be paid. This is so because the capital cannot be withdrawn from the enterprise. To the extent, however, that the property is consumed in service and must eventually be replaced, there must be a prospect of a return or there will be no inducement to replace the property either through new capital issues or out of a depreciation fund. But certainly a return does not have to be paid on the capital which represents a permanent investment in property that cannot be withdrawn from the particular enterprise. This, however, is no reason for denying such a return. Fairness and justice require that a return be permitted on such capital if it is possible for the property to earn it.

When a railroad is unable to earn a return upon all the capital invested in it, the usual thing is for the company to reorganize. Presumably the company will emerge with a much smaller capitalization. The ability of that company to attract new capital will then depend, not upon its ability to pay a return upon the capital originally invested in the railroad, but upon its ability to pay interest and dividends. If it can pay interest and dividends, it can probably obtain new capital on favorable terms, notwithstanding the fact that it does not earn an adequate return upon the money originally invested. But this, again, is hardly justification for denying a carrier a return on the original investment if, under a new management or changed conditions, it finds it possible to earn it.

Notwithstanding this qualification, it remains true that some sort of a return must be permitted if private capital is to be enticed into railroad enterprises. This is the economic basis for the practice of adjusting rates to give railroads and utilities a return on their investment or on their "value."

THE COMPETITIVE BUSINESS ANALOGY

Sometimes the practice of regulating profits is justified in another way. This reasoning starts with the assumption that under a system of regulation the railroads should be given the same earnings that an

unregulated competitive business would be able to secure. The assumption appears, at first hand at least, to be a reasonable one, fair both to the public and to the companies. In the long run the earnings in a competitive industry will cover cost of production including a normal return upon the capital invested. Individual concerns may fare better or worse than this; but if earnings are more than a normal return, new competitors are enticed into the field and prices are brought down. If less than this is earned, producers drop out until the supply and demand are again adjusted. Such is the situation in a purely competitive field when competition works out perfectly. If this is so, is it not reasonable to treat regulated industries in the same way?

OBJECTIONS TO CONTROLLING RATES BY PROFITS

Although it is generally agreed that the rate level should be regulated and adjusted to give the carriers an adequate but not excessive return, there are some writers who have taken the position that there should be no limitation of carrier profits. According to this view, the carriers should be permitted to follow the practice of charging what the traffic will bear without reference to the profits accruing to them.¹¹ This view rests upon three grounds. The first is that the present method of regulation is a cost-plus arrangement that removes all incentive to efficiency and technical progress. In part this accusation is justified, as we shall point out shortly; but it is doubtful if the remedy lies in abandoning regulation and permitting carriers to take advantage of their monopoly where such monopoly exists.

The second basis for abandoning the practice of limiting profits is the belief that a "fair" or "normal" return is insufficient to attract capital into the railroad enterprise. This was the view of Hadley. To lower the price effectively we must remove scarcity, he said. This requires capital, and in order to get the capital we must allow a profit commensurate with the risk involved.

If the government says to the company, "If you succeed, you are limited to a normal rate of profit; if you fail, your shareholders must stand the loss"—it is obvious that the experiment will not be made at all. The country that limits rates to "a fair return" on prudently invested capital discourages just the sort of

¹¹ Cabot, Philip, "Public Utility Rate Regulation," 7 *Harvard Business Review* 257 and 413 (1929); "Four Fallacious Dogmas of Utility Regulation," 7 *Public Utilities Fortnightly* 719 (1931); Hadley, A. T., "Principles and Methods of Rate Regulation," 16 *Yale Review* 417 (1927). Hadley's views are also described and criticized by James C. Bonbright in *Report of Commission on Revision of the Public-Service Commissions Law* (Albany, 1930), pp. 374-377.

industrial enterprise which is the most effective measure of lowering public service charges and keeping the nation in the forefront of progress.¹²

It is obvious that Hadley was laboring under a misapprehension regarding the fair return idea. A fair return is not pure interest, or a normal profit without allowance for risk. Both courts and commissions recognize that a rate of return, to be "fair," must include compensation for risk, and that it must be sufficient to attract capital.

The third argument for permitting unrestricted profits is based on the idea that the interests of the railroad and its patrons are identical. It is urged that the railroad will find it in its own interest to encourage traffic by reducing rates to the lowest possible point, since this policy will increase profits. To support this contention it is pointed out that the railroad operates under conditions of decreasing unit cost as the volume of traffic increases, and that the demand for transportation services is elastic. High rates are held to discourage patronage by turning consumers to substitute services. This view has been ably answered by Bonbright. "It is doubtless true that competition by the use of substitute or alternative services does fix an upper limit of prices above which a public utility, in its own pecuniary self-interest, cannot go in fixing rates"; but this force does not prevent the railroad or utility "from charging more than it needs to charge in order to perform the service and to attract necessary capital for extensions and improvements."¹³ He correctly concludes that "there is not the slightest ground in economic theory for supposing that this point of 'maximum profits' is the . . . point at which rates should be fixed in the *public* interest."¹⁴

CONSTITUTIONAL LIMITATIONS

Regulatory commissions have not had a completely free hand in fixing the general level of rates. The courts, in order to protect the constitutional rights of the carriers, have imposed limitations on the power of commissions to reduce railway rates. It becomes important, therefore, to study the standards which have been laid down by the courts in their efforts to protect the carriers from arbitrary action by rate-making bodies. Before these judge-made standards are described, however, it would be well to consider the process by which the courts came to interfere in rate making.

¹² Hadley, A. T., *op. cit.*, p. 424.

¹³ Bonbright, *op. cit.*, p. 375.

¹⁴ *Ibid.*

DEVELOPMENT OF JUDICIAL REVIEW

It was not until more than twenty years after the States began to regulate railway rates that the courts asserted the right to review, and if deemed necessary, to set aside rates which had been prescribed by legislatures or by commissions. The courts at first took the position that regulation was a legislative and not a judicial function, and that it was improper for the courts to interfere. In one of the Granger cases the Supreme Court, in referring to the power of the legislature to control rates, said: "We know that this is a power which may be abused; but that is no argument against its existence. For protection against abuses by legislatures the people must resort to the polls, not to the courts."¹⁵ In another of the Granger cases the Court said: "Where property has been clothed with a public interest, the legislature may fix the limit to that which shall in law be reasonable for its use. This limit binds the courts as well as the people. If it has been improperly fixed, the legislature, not the courts, must be appealed to for the change."¹⁶ By maintaining this position the courts barred the way to any relief from unreasonably low rates prescribed by legislatures or commissions.

The position taken by the courts on this question hardly seems consistent with the theory of our government. The Fourteenth Amendment to the Constitution provides that "no State shall deprive a person of property without due process of law." A similar prohibition against the Federal Government is found in the Fifth Amendment. It is one of the functions of American courts to protect the rights guaranteed by the Constitution. But if the courts would not review the rates prescribed by legislative authority, even if property rights were infringed, the Constitution would not be affording protection to railroad property. As the Supreme Court said in *Smyth v. Ames*: "The duty rests upon all courts, Federal and state, when their jurisdiction is properly invoked, to see that no right secured by the supreme law of the land is impaired or destroyed by legislation. This function and duty of the judiciary distinguishes the American system from all other systems of government."¹⁷ It is not strange, therefore, that the doctrine of noninterference with the regulative powers of the legislative branch of the government was soon modified by the Supreme Court.

The first intimation of judicial interference with the legislative

¹⁵ *Munn v. Illinois*, 94 U.S. 113, 134 (1877).

¹⁶ *Peik v. Chicago & North Western R. R. Co.*, 94 U.S. 164, 178 (1877).

¹⁷ 169 U.S. 446, 527-528 (1898).

power to fix rates occurred in *Stone v. Farmers' Loan & Trust Co.* in 1886. Here the Court said:

From what has been said, it is not to be inferred that this power of limitation or regulation is itself without limit. This power to regulate is not a power to destroy, and limitation is not the equivalent of confiscation. Under pretence of regulating fares and freights, the State cannot require a railroad corporation to carry persons or property without reward; neither can it do that which in law amounts to a taking of private property for public use without just compensation, or without due process of law.¹⁸

But it was in *Chicago, Milwaukee & St. Paul Ry. Co. v. Minnesota*, decided in 1890,¹⁹ that the right of judicial review of rates prescribed by legislative authority was clearly established. The right was again asserted in *Reagan v. Farmers' Loan & Trust Co.* in 1894,²⁰ and has been consistently maintained since that time. Three of the present justices of the Supreme Court of the United States, however, believe that the courts do not have the right to interfere with rates fixed by legislatures or commissions.²¹

THE RULE OF *Smyth v. Ames*

By 1890 the courts had asserted that they had the power and duty to set aside rates fixed by public authority if those rates were so low as to be confiscatory. The courts, however, had not yet drawn the line between rates that are confiscatory and rates that are not confiscatory. In the famous case of *Smyth v. Ames*, decided in 1898,²² the Supreme Court of the United States attempted to draw the line between confiscatory rates and rates that avoided confiscation, and in so doing the Court set up a standard for the determination of rate levels that has largely dominated railroad and public utility rate making since that time in cases in which the general level of rates is under consideration.

In the *Smyth v. Ames* decision the Court said:

We hold that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public. . . . What the company is entitled to ask is a fair return upon the value

¹⁸ 116 U.S. 307, 331.

¹⁹ 134 U.S. 418.

²⁰ 154 U.S. 362, 397.

²¹ See concurring opinion of Justices Black, Douglas, and Murphy in *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942), pp. 599-601; separate opinion of Justices Black and Murphy in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), pp. 619-620; and dissenting opinion of Justice Black in *McCart v. Indianapolis Water Co.*, 302 U.S. 419 (1938), pp. 427-428.

²² 169 U.S. 466.

of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.²³

Here we really have two standards suggested: (1) cost of service, i.e., operating expenses and a fair return upon the value of the property; and (2) the value of the service, or what the services are reasonably worth to shippers. Of the two standards suggested, the first has become the accepted standard of reasonableness of rates in general. The second has, in practice, received scant attention. When we refer, therefore, to the rule of *Smyth v. Ames*, we shall have in mind the rule that rates should afford the carrier a fair return upon the fair value of its property.

REASONABLE RATES AND NONCONFISCATORY RATES

The fair-value rule was evolved as a means of protecting the carriers against unreasonably low rates prescribed by legislative authority. It was intended primarily to protect the carriers against confiscation. But the *Smyth v. Ames* rule came to be, not merely a minimum below which rates should not fall, but a real standard of reasonableness. In other words, commissions have endeavored to adjust rates so that the carriers will earn a fair return, but they do not intend to permit higher rates than this. Commissions have sometimes been severely criticized for directing their attention to the fixing of rates that will just avoid confiscation, and for not recognizing that higher rates may be justified.²⁴ It is argued that the *Smyth v. Ames* decision gives a rule for prescribing nonconfiscatory rates, not a rule for prescribing "reasonable" rates.

It is true that a commission in prescribing "just and reasonable" rates may make them higher than is necessary to avoid confiscation if it so desires. In the words of the United States Supreme Court:

A commission or other legislative body, in its discretion, may determine to be reasonable and just a rate that is substantially higher than one merely sufficient to justify a judicial finding in a confiscation case that it is high enough to yield a just and reasonable return on the value of the property used to perform the service covered by the rate. The mere fact that a rate is non-confiscatory does not indicate that it must be deemed to be just and reasonable.²⁵

Although commissions may consider that rates, in order to be rea-

²³ *Ibid.*, p. 377.

²⁴ Updegraff, C. M., "Deductions from the Economic Basis of Public Utility Rates," 12 *Iowa Law Review* 249 (1927); Brown, C. E., "Economic Aspects of Rate Regulation," 18 *American Bar Association Journal* 473, 474 (1932).

²⁵ *Banton v. Belt Line Ry. Corp.*, 268 U.S. 413, 422-423 (1925). For other citations in support of this principle see Guernsey, Nathaniel T., "The Test of Reasonable Rates," 14 *Virginia Law Review* 1 (1927).

sonable, should be substantially higher than merely nonconfiscatory rates, there is no warrant for the conclusion that rates in order to be reasonable, *must* be higher than those resulting from the *Smyth v. Ames* standard. The United States Supreme Court has clearly indicated that the fair-value standard is a standard of reasonableness, and not merely of nonconfiscatoriness. "By investment in a business dedicated to the public service the owner must recognize that, as compared with investment in private business, he cannot expect either high or speculative dividends but that his obligation limits him to only fair or reasonable profit."²⁶ This seems to support the contention that the *Smyth v. Ames* rule prescribes a standard of reasonableness and does not merely fix a minimum below which rates should not fall. And later in the same case, Chief Justice Taft said: "If the profit is fair, the sum of the rates is so. If the profit is excessive, the sum of the rates is so."²⁷

There is another consideration which points to the conclusion that the level of rates suggested by the *Smyth v. Ames* rule is reasonable and adequate. A fair rate of return, as will be pointed out later, has been considered by the courts as a return which would be adequate to attract capital. From an economic point of view there is certainly no need of giving a larger return; rates should enable carriers to earn a "fair return" on their fair value, but they do not need to be higher. The *Smyth v. Ames* standard is properly a standard for determining a reasonable level of rates.²⁸

DIVIDENDS AND THE FAIR-VALUE RULE

Two common misconceptions about the fair-value doctrine should be dispelled in order to avoid confusion of thought.

The first misunderstanding is that the fair-value rule restricts dividends to a certain amount. The fair-value rule is directed toward the return earned upon the property value, and not toward the dividends paid or earned. A carrier which is conservatively capitalized may earn less than 6 percent, for instance, upon the value of its property and yet be able to pay dividends on stock at a much higher rate. On the other hand, an overcapitalized road may earn more than a fair return and yet be able to pay scarcely any dividends at all.

Table XVII lists some of the railroads which earned a net railway

²⁶ *Dayton-Goose Creek Ry. Co. v. United States*, 263 U.S. 456, 481 (1924).

²⁷ *Ibid.*, p. 483.

²⁸ Merrill, M. A., "On the Distinction Between a Non-Confiscatory Rate and a Just and Reasonable Rate," 14 *Cornell Law Quarterly* 447, 455-456 (1929).

operating income in 1925 of less than $5\frac{3}{4}$ percent on their book value but whose net earnings per share after paying interest and rentals were liberal. In studying Table XVII it should be noted that the return given in the first column is the return upon book value, not the return upon what the Commission would consider "fair value." The "fair value" may be greater or less than the book value.

The fact that carriers can make good earnings per share when earning less than a fair return may be due to three factors. The first and least important is that they may have additional income, such as income

TABLE XVII
NET RAILWAY OPERATING INCOME AND NET INCOME, SELECTED
RAILROADS, 1925²⁰

Carrier	Ratio of Net Ry Operating Income to Book Value Plus Cash, Materials and Supplies	Ratio of Net Income to Capital Stock After P. and Fixed Charges
Akron, Canton & Youngstown	5.1%	29.8%
Archison, Topeka & Santa Fe	5.0	12.3
Baltimore & Ohio	5.1	9.9
Bangor & Aroostook	5.1	9.9
Chicago & North Western	4.0	6.4
Chicago, Burlington & Quincy	4.6	12.4
Delaware, Lackawanna & Western	5.5	16.9
Delaware & Hudson	5.3	12.3
Florida East Coast	5.4	10.2
Illinois Central	4.6	11.4
Lehigh Valley	5.0	13.3
New York, Chicago & St. Louis	5.2	11.5

from other property or from securities held. The figures in the first column of the above table represent only the net income from railroad operations, while the figures in the second column may include income from other sources. A second cause is a small capitalization. A railroad with a low capitalization, that is, with securities outstanding which are less than the value of its property, can earn a small return upon its value but have a larger return on its capitalization. But the third and most important reason why earnings per share tend to be larger than the rate of return on the value of the carrier's property is that a considerable proportion of the railroad's capitalization may be in the form of bonds bearing a low rate of interest. This concentrates upon a comparatively small amount of stock the net earnings remaining after interest is paid. An extreme illustration of comparatively moderate earnings upon book

²⁰ Taken from Interstate Commerce Commission, *Statistics of Railways of the United States*, 1925, pp. xcii-xciii.

value, but of enormous earnings per share of stock, is afforded by the Bessemer & Lake Erie, which had a net railway operating income of 7.9 percent upon its book value in 1925 but, after paying fixed charges, earned 853 percent on its capital stock. The book value of the road was over \$67,000,000; its capitalization was only a little more than \$6,500,000; and only \$500,000 of its capitalization was represented by common stock. These figures should make it clear that the rule of *Smyth v. Ames* is not inconsistent with generous dividends.

NO GUARANTY OF A FAIR RETURN

Another erroneous opinion regarding the fair-value doctrine is that it practically guarantees a railroad a fair return. There are many railroads in the United States that have never received a fair return upon the value of their property and probably never will. The most important reason for this situation is the economic impossibility of charging rates that will yield a fair return. Some are in competition with stronger roads which can and do charge rates lower than are reasonable for the weaker line; some serve sparsely settled sections of the country where traffic is light. In the one case higher rates divert traffic to the other lines; in the other case high rates may exceed the value of the service. For these reasons it is often impossible for a railroad to secure a fair return. The rule of *Smyth v. Ames* will protect the carrier against the arbitrary action of rate-making authorities, but it will not protect the carriers from the operation of economic forces. The United States Supreme Court has clearly stated that the fair-value rule cannot protect a carrier from all business hazards.

The due process clause of the Fourteenth Amendment safeguards against the taking of private property, or the compelling of its use, for the service of the public without just compensation. But it does not assure to public utilities the right under all circumstances to have a return upon the value of the property so used. The loss of, or the failure to obtain, patronage, due to competition, does not justify the imposition of charges that are exorbitant and unjust to the public. The clause of the Constitution here invoked does not protect public utilities against such business hazards.³⁰

The fact that many railroads in the United States earn less than a fair return while others regularly earn more than a fair return is proof

³⁰ *Public Service Commission of Montana v. Great Northern Utilities Co.*, 289 U.S. 130, 135 (1933). In *Federal Power Commission v. Natural Gas Pipeline Co.*, the Supreme Court said: "... regulation does not insure that the business shall produce net revenues." 315 U.S. 575, 590 (1942). See also *Market Street Ry. Co. v. Railroad Commission of California*, 324 U.S. 548 (1945).

that the *Smyth v. Ames* rule cannot be applied with success to individual railroads. Of 131 Class-I line-haul railways, 16 actually operated at a deficit in 1940; 8 others earned less than 1 percent on the estimated value of their properties. On the other hand, 11 earned more than 10 percent on their estimated value, and 2 of these earned approximately 18 percent. Table XVIII shows the grouping of the 131 carriers according to the rates of return which they earned.

TABLE XVIII

GROUPING OF RAILROADS ACCORDING TO RATE OF RETURN EARNED
ON ESTIMATED VALUE OF THEIR PROPERTIES, 1940³¹

Rate of Return	No. of Class-I Railroads
Deficit	16
Less than 1%	8
1-1.9%	11
2-2.9	25
3-3.9	19
4-4.9	13
5-5.9	10
6-6.9	7
7-7.9	5
8-8.9	4
9-9.9	2
10-14.9	9
15-19.9	2
	<u>131</u>

THE CREDIT STANDARD

The Supreme Court has not always resorted to the fair-return-on-fair-value standard in determining whether the rates prescribed by regulatory authorities are confiscatory. It has sometimes applied what might be called a "credit standard." In other words, the Court has brushed aside matters relating to "fair value" and its determination, and has looked merely at net earnings in relation to interest and dividend requirements and perhaps to the desirability of building up a surplus out of earnings. The primary consideration under this standard is whether the companies have earnings sufficient to maintain their credit and to attract capital to the industry.

The fair-return-on-fair-value standard and the credit standard may be quite different in particular instances. This is because the fair-return-on-fair-value standard concentrates attention on the relation of earnings to investment, or some measure of the "fair value" of the property of the

³¹ Table computed from data in Bureau of Statistics, Interstate Commerce Commission, Statement No. 4142, *Rate of Return on Value of Property of All Operating Steam Railway Companies, Calendar Year 1940*.

carrier, while the credit standard emphasizes the relation of earnings to capitalization, i.e., stocks and bonds outstanding. As previously pointed out, an overcapitalized road may earn more than a fair return on fair value and have insufficient earnings to pay interest and dividends. On the other hand, a very conservatively capitalized railroad may have excellent credit although it earns less than a fair return on the fair value of its property.

The Supreme Court resorted to the credit standard in 1934 in *Lindheimer v. Illinois Bell Telephone Co.*³² In that case the Supreme Court reversed a decision of a lower court which had enjoined a reduction of telephone rates required by the Illinois Commerce Commission. The Supreme Court rejected the conclusion of the lower court that the rates were confiscatory, not as a result of considering the fair value of the company's property, but by observing that if the reduced rates were confiscatory so also were existing rates, but under these rates the company had excellent credit, had paid interest on its debt and 8 percent dividends on its stock, had built up large depreciation and other reserves, and had greatly increased its surplus and undivided profits.

Not only has the Commission occasionally applied the credit standard of reasonableness, but in *Federal Power Commission v. Hope Natural Gas Co.*, decided in 1944,³³ the Court seems to set up the credit standard as the ultimate test which is to be applied by the courts in determining whether rates are confiscatory or not. In this case the Supreme Court refused to go into the question of whether a valuation made by the Federal Power Commission had been properly determined, but contented itself with observing that the rates prescribed were adequate under the credit test and would not therefore be disturbed by the Court.

From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. . . . By that standard the return to the equity owners should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.³⁴

In a more recent case the Court referred approvingly to the standard set up in the *Hope* case as "a standard of finance resting on stubborn facts."³⁵

³² 292 U.S. 151 (1934).

³³ 320 U.S. 591 (1944).

³⁴ *Ibid.*, p. 603.

³⁵ *Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U.S. 581, 605 (1945).

Certain criticisms of the credit standard are pointed out in the following chapter.³⁶

STATUTORY STANDARDS

We have described the *Smyth v. Ames* or fair-return-on-fair-value standard of reasonableness, and also the more recently established credit standard, both of which have been devised by the courts in their efforts to prevent confiscatory rates. The *Smyth v. Ames* standard has naturally served as a guide to regulatory commissions, as we have pointed out; but in the future the credit standard may come to be used by commissions in lieu of the older standard. In addition to these judge-made standards, the legislative branch of the Government has attempted to prescribe standards to be observed by regulatory bodies. In railroad rate making the important Congressional standards have been those prescribed in the so-called Rule of Rate-Making—Section 15a of the Interstate Commerce Act.

THE ORIGINAL SECTION 15a

Section 15a was added to the Interstate Commerce Act in 1920 as a result of a general feeling that the statute should impose upon the Interstate Commerce Commission the affirmative duty of prescribing rates which would afford the carriers adequate revenues.³⁷ As previously pointed out the section, as originally enacted, directed the Interstate Commerce Commission to

initiate, modify, establish or adjust . . . rates so that carriers as a whole (or as a whole in each of such rate groups or territories as the Commission may from time to time designate) will, under honest, efficient and economical management and reasonable expenditures for maintenance of way, structures, and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation.

The section made use of the fair-return-on-fair-value concept, and it might be thought that the section was merely incorporating into the statute the *Smyth v. Ames* doctrine. It is important to note, however, that the *Smyth v. Ames* rule, as evolved by the courts, applied to individual railroads, while Section 15a applied to the carriers "as a whole," or as a whole in rate groups. The right of the individual carrier to a fair return—a constitutional right—was not impaired by the existence of the new rule requiring rates to be based on aggregate property values. But the constitutional right is of little value to a weak carrier, since higher

³⁶ See p. 411, *infra*.

³⁷ Pp. 238-241, *supra*.

rates than are maintained by other carriers in the group will usually reduce its earnings still further. To the stronger lines Section 15a gave a right not possessed before. It gave them a right to a rate level high enough to yield the railroads as a whole a fair return upon their aggregate property values, and not simply a rate level sufficient for their individual needs.

THE REVISED RULE OF RATE-MAKING

Section 15a underwent complete revision in 1933.³⁸ All mention of fair return on fair value was eliminated from the section. The new rule required the Commission in prescribing reasonable rates to give due consideration, among other factors,

to the effect of rates on the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers, under honest, economical, and efficient management, to provide such service.

The complete removal of any reference to fair return on fair value was due to a number of circumstances. One of these was the difficulty involved in the ascertainment of "fair value," a difficulty which will become more evident to the reader in the following chapter.

Another reason for removing the specific direction to the Commission to prescribe a certain rate level was that such a requirement seemed to place the revenue needs of the carriers ahead of all other considerations in fixing rates. The carriers were constantly urging upon the Commission the view that whenever earnings fell below the contemplated fair return on fair value the Commission was under legal obligation to grant increases in rates requested by the carriers regardless of other considerations. The Commission had refused to accept this interpretation of Section 15a,³⁹ but the language of the section gave some color to the contentions of the railroads.

A third criticism of the original Section 15a was clearly revealed during the depression years following 1929. The Rule of Rate-Making implied that railroad earnings could be stabilized, whereas earnings are subject to wide variations due to changes in the volume of traffic, which, in turn, are dependent upon general business conditions. The Interstate Commerce Commission recognized that railroad earnings would fluctuate.

³⁸ P. 266, *supra*.

³⁹ See *Reduced Rates*, 1922, 68 I.C.C. 676, 730 (1922); and *Fifteen Per Cent Case*, 1931, 178 I.C.C. 539, 575-577 (1931).

tuate with changes in business activity and refused to adopt a policy which would make rates vary inversely with the volume of business. Thus, in *Fifteen Per Cent Case, 1931*, the Commission refused a substantial increase in rates during a depression, saying:

It is only necessary to have in mind the incongruous results which would follow an attempt to adjust rates so that a stable rate of return would be realized, notwithstanding general business conditions and the rise and fall of traffic in consonance therewith, to realize the unreasonableness and impracticability of any such policy.⁴⁰

Notwithstanding this interpretation placed upon Section 15a by the Commission, the language of the section seemed to imply higher rates in periods of depression in order to carry out the mandate of the law. This was undoubtedly a factor in causing Congress to modify the language of Section 15a.

The revised Section 15a does not neglect the revenue needs of the carriers. Revenue need is specifically enumerated as one of the factors to be considered by the Commission, but it becomes one of three factors specified instead of the only one mentioned in the section. The language of the revised Section 15a strongly suggests a credit standard, since emphasis is put upon revenues necessary to enable the railroads to maintain an adequate transportation system.

The revised Section 15a not only mentions the need of revenues sufficient to enable the carriers to provide an adequate and efficient railway transportation service, but it also mentions "the need of adequate and efficient railway transportation service *at the lowest cost consistent with the furnishing of such service*,"⁴¹ thus recognizing the public's interest in having low rates.

"EFFECT OF RATES ON THE MOVEMENT OF TRAFFIC"

The effect of rates on the movement of traffic is mentioned as one factor to be considered by the Commission in prescribing rates. Prior to the change in Section 15a there had been some controversy whether the Commission should consider the effect of proposed rates on the movement of traffic in carrying out the Rule of Rate-Making. The position of the railroads was that the Commission should not question the judgment of the carriers that proposed increases in rates would increase revenues, or that reductions in rates would reduce revenues. The Commission, however, had adopted the view that it could and should inquire

⁴⁰ 178 I.C.C. 539, 565.

⁴¹ Italics added.

into the probable revenue effects of a proposed change in rates. It was partly on the theory that a reduction of rates would increase the volume of traffic that the 10 percent reduction in rates was ordered in *Reduced Rates, 1922*.⁴² Considerations of this nature were also important in the granting of only small increases in rates in *Fifteen Per Cent Case, 1931*.⁴³

The enumeration of "the effect of rates on the movement of traffic" as a factor to be considered by the Commission in rate level cases has disposed of the matter for the present. The factor has been given considerable weight in numerous cases since 1933 which have involved the levels of rates and fares,⁴⁴ and the Supreme Court has recognized that consideration of the revenue effects of proposed rate changes is properly a function of the Commission.⁴⁵ The railroads, however, feel strongly that the Interstate Commerce Commission should not have this power, and they have asked that Section 15a be amended by eliminating "the effect of rates on the movement of traffic" as a factor to be considered by the Commission.⁴⁶ A similar view has been expressed by others.⁴⁷

As long as the Commission is charged with responsibility for maintaining a level of rates that is adequate for the carriers it would be entirely unrealistic for the Commission to ignore the revenue effects of proposed changes in rates. The views of railroad managers as to the probable consequences of increases or reductions in rates should not be disregarded, or treated lightly, but the Commission cannot intelligently carry out the general policy of the law without considering the probable effects of proposed rate changes.

PROBLEMS IN THE REGULATION OF THE RATE LEVEL

Whatever the standards of reasonableness applied in the determination of the rate level, certain problems and difficulties are encountered.

⁴² 68 I.C.C. 676, 733-734.

⁴³ 178 I.C.C. 539, 575.

⁴⁴ Notably *Passenger Fares and Surcharges*, 214 I.C.C. 174, 231 (1936); *Fifteen Percent Case, 1937-1938*, 226 I.C.C. 41, 77 (1938); *Eastern Passenger Fares in Coaches*, 227 I.C.C. 17, 27 (1938).

⁴⁵ *Hudson & Manhattan R. R. Co. v. United States*, 313 U.S. 98, 99 (1941).

⁴⁶ *Report of Committee Appointed September 20, 1938, by the President of the United States to Submit Recommendations upon the Transportation Situation*, pp. 14-15; Statements of R. V. Fletcher in *Hearings before Committee on Interstate & Foreign Commerce, House of Representatives, on Omnibus Transportation Bill* (1939), vol. I, pp. 389-390, 563-566.

⁴⁷ Johnson, Emory R., "Government Regulation of Railroads in the United States," 201 *Annals* 165, 169 (1939); Langdon, Jervis, Jr., "Should the Regulation of Railroad Rates Be 'Streamlined' Too?" 24 *Cornell Law Quarterly* 309 (1939).

ADEQUACY OF ACCOUNTS

One question which arises at the outset is that of the truthfulness of railroad accounts and of the propriety of the accounting methods used. If the adequacy or propriety of the net railway operating income of a carrier or group of carriers is under consideration, there must be assurance that the net railway operating income shown in the accounts is in fact what it purports to be. Railroad accounts must be kept according to a sound and uniform system.

Before railroad accounts were regulated by the Government, the greatest confusion existed in the methods used. No careful distinction was drawn between the expenditures which are chargeable to capital account and which affect the reported investment in road and equipment, but which do not affect the operating expenses, and those expenditures which should be paid from current earnings and are called operating expenses. A railroad which charged additions and betterments to operating expenses would be overstating its expenses. It would show a smaller net return than it should, and a smaller investment in its property. On the other hand, a railroad which charged replacements and maintenance to cost of road and equipment would be inflating its investment account, and by an understatement of operating expenses, would show a net income which was wholly or partly fictitious. Prior to 1907, lack of definite accounting regulation made possible the manipulation of accounts and the falsification of statements of earnings. Not only was wilful falsification possible, but there were honest differences of opinion in regard to accounting practice. For instance, it is not always easy to draw the line between expenses which should be charged to operating expenses and those which should be charged to capital. If old rails are torn up and replaced with new but heavier rails, how much of the expenditure is chargeable to operating expenses, and how much represents new investment in the property? Or if old rails are replaced by new ones of the same kind but which cost more than the old ones, is the entire cost to be considered as an operating expense, or is the excess cost of the new rails over the old to be considered as a further investment and therefore chargeable to capital? Different answers to these questions as well as to many others would cause differences in reported net income. Government supervision and regulation of accounts is indispensable if rate regulation is to be successful.⁴⁸

⁴⁸ Accounting regulation of railroads is discussed in ch. XXIII.

FLUCTUATING EARNINGS

We have already noted that the fair-return-on-fair-value rule as incorporated in the original Section 15a seemed to imply the possibility of stabilizing railroad earnings. In practice this was found impossible. Our study of the fixed nature of many railroad expenses has made it clear why fluctuations in railroad earnings would be expected to vary greatly from year to year. It is wholly unrealistic to assume that railway rates can be adjusted to give the railroads the desired income in each and every year. This principle has been forcefully stated by Professor Sharfman as follows:

In an economic system in which progressive change in existing arrangements and the chaotic succession of cyclical fluctuations create a large measure of instability, instability must, for the most part, be the lot of the railroads also. The hope that rate regulation will at all times afford earnings adequate but not excessive—that a formula involving property value and a rate of return thereon will mark out for the railroads a calm course through troubled economic waters—is obviously an illusory one; and any attempt to maintain a steady flow of railroad income by adjusting rates inversely to the volume of traffic is not only bound to prove impracticable, but is clearly unwarranted in its presumption that the philosophy of regulation bestows upon the carriers so preferred a status in the ranks of industry.⁴⁹

HONEST, EFFICIENT, AND ECONOMICAL MANAGEMENT

The adjustment of the rate level to cover operating expenses and a definite return on capital is not conducive to the greatest efficiency and economy in the operation and management of the industry. If a railroad were assured of earnings sufficient to yield a fair return under all circumstances, there would be little incentive for the railroad to strive for the greatest possible efficiency in the operation of its system or to introduce improved operating methods.

This problem is of less importance in regulating railways than public utilities because railroad rates must be fixed for carriers as a whole, as we shall presently see. Once the general level is fixed for the railroads as a whole, or for a particular group of carriers, each individual railroad may be able to improve its position by exertion in behalf of efficiency and economy. If it is earning less than a fair return, it can hope to attain the desired level only by its own efforts, and not by appeal to regulatory bodies. If it is earning a fair return, or more, it will not be deprived of additional profits that may be obtained through even

⁴⁹ *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), p. 295.

greater efficiency. But notwithstanding this fact, there is ample evidence to support the belief that the railroads and other regulated businesses are less energetic in introducing methods and practices that lead to greater efficiency than industries which are stirred to action by the spur of competition.

Regulatory authorities do not have direct control over railroad expenditures or over the operating methods and business practices of railroads. Thus the Interstate Commerce Commission has said:

... while we may ... take the character of management and operation into consideration in fixing the level of rates, we are unable to find any provision of the act which authorizes us by order to require a carrier to conduct its affairs along lines which may seem to us more efficient and economical than those now followed.⁵⁰

In another case the Commission commented upon the fact that it could not insure or enforce honest, efficient, and economical management.⁵¹ A Federal court has also found that Section 15a "gives no power of directly supervising carrier expenditures."⁵²

What, then, can regulatory authorities do to enforce the requirement of "honest, economical, and efficient management" mentioned in Section 15a? First, when the occasion demands it, the Commission can admonish the carriers and advise them to introduce certain economies or to improve their methods of operation. This the Commission has done in a few cases.⁵³ Another thing which the Commission may do, and has done, to discourage wasteful and uneconomical practices is to make public such examples as may be revealed by its investigations.⁵⁴

In a few instances the Commission has held that certain expenditures were improper and should be excluded in determining rates. Thus in a report on the construction and repair of equipment of the New Haven Railroad the Commission said:

The record compels us to regard a substantial portion of the extraordinary expenditures incurred by respondent in this outside repair work as improvident and of a character which should be considered when fixing rates to yield the standard return as provided by the act.⁵⁵

⁵⁰ *New Mexico Central Ry. Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 81 I.C.C. 718, 722 (1933).

⁵¹ *Missouri-Kansas-Texas R. R. Co. v. Kansas City Terminal Ry. Co.*, 104 I.C.C. 203, 224 (1925).

⁵² *Missouri Pacific R. Co. v. Norwood*, 42 Fed. (2d) 765, 773 (1930).

⁵³ See *The Five Per Cent Case*, 31 I.C.C. 351, 408-414 (1914); *Fifteen Per Cent Case*, 1931, 178 I.C.C. 539, 585 (1931); *General Rate Level Investigation*, 195 I.C.C. 5, 55 (1933).

⁵⁴ See footnote 3, this chapter.

⁵⁵ *Construction & Repair of Railway Equipment*, 107 I.C.C. 721, 735 (1926).

The difficulty in any attempt to penalize railroads for inefficient management through regulation of the rate level lies in the fact that a particular carrier cannot be singled out in this way. Rates must be made for the carriers as a whole or in groups, and to penalize one through the rate level penalizes all within the group.

INDIVIDUAL VALUES OR GROUP VALUES

Mention has been made of the necessity of making rates for railroads as a whole or in groups. This fact requires further consideration. It is a major problem in railroad regulation, although not often encountered in the regulation of other public utilities.

The impossibility of maintaining a different level of rates on railroads that are strictly competitive is obvious. Yet differences in operating conditions and traffic density on the different roads may be so great that a level of rates proper for one carrier is higher than another needs to charge, and entirely inadequate for a third. A similar situation may exist between railroads which seemingly possess a monopoly of the regions they serve. Higher rates in one region than in another tend to discourage industry and agriculture in that area, while lower rates have the opposite effect. As a result it is often impossible to maintain different rate levels on different railways. This means that some compromise must be effected.

This problem has often been encountered by the Interstate Commerce Commission when adjusting rate levels or in determining the reasonableness of rates between specific points. In considering rates on grain in Trunk-Line Territory in 1903 the Commission faced this problem and decided to determine the reasonableness of the rates with respect to the two largest railway systems between the East and West: the New York Central and the Pennsylvania.⁵⁶ This was thought to be fair also to the Baltimore & Ohio. The situation was again before the Commission in 1909 when considering rates from St. Paul to Seattle and Spokane in the Northwest. Two points of view were presented to the Commission concerning the road which was to be used for setting the rates. One view was that the least expensive route was to be used as a standard "even though the rates thus established when applied to the business of its competitors would deprive them of a fair return upon their investment."⁵⁷ The defendant railroads, however, argued otherwise.

⁵⁶ *Re Proposed Advances in Freight Rates*, 9 I.C.C. 382, 426 (1903).

⁵⁷ *City of Spokane v. Northern Pacific Ry. Co.*, 15 I.C.C. 376, 392 (1909).

The Commission said:

They urge that a railroad is entitled to a fair return upon its investment, and that this rule applies to all railroads alike. This is the right of the railroad laboring under disadvantages of location and operation, as well as of that one more favorably circumstanced. Hence the Commission must consider that railroad whose net earnings will be the least, for if it established rates which only yield fair returns to the road most favorably situated, it of necessity knowingly and intentionally deprives every other road of a fair return upon the value of its property.⁵⁸

The Commission compromised by considering the railroads as a whole. A similar policy has been followed by the Commission in other cases involving particular rates,⁵⁹ and also in cases which involved the general rate level.⁶⁰ This was the only practicable course to follow.

The policy of considering railroads as a whole in fixing rates received Congressional sanction in 1920. Section 15a of the Act provided that the Commission should prescribe rates that would give the carriers "as a whole, or as a whole in such rate groups as the Commission should prescribe," a fair return upon the aggregate value of their properties. The Rule of Rate-Making was supplemented by the Recapture Clause as a means of preventing some railroads from earning inordinately large returns and of aiding the weaker roads to improve their earning position.⁶¹ The Act of 1933 repealed the Recapture Clause, and substituted a new Rule of Rate-Making. The new Section 15a makes no reference to the railroads as a whole or in rate groups. In a footnote in a Supreme Court decision in 1945, Mr. Justice Black in referring to the revised Rule of Rate-Making said: ". . . the rates were no longer to be treated on a national basis as though all railroads constituted one system. Railroads were to be treated on an individual basis."⁶² This interpretation of the purpose and effect of the new rate-making rule is questionable, but as a practical matter the railroads must be considered as a whole or in groups in general rate-level cases. The Commission found this to be true long before the original Section 15a was enacted. When a rate level is prescribed which is adequate for the railroads as a whole or in rate groups, there will almost always be some railroads which will earn

⁵⁸ *Ibid.*, p. 392.

⁵⁹ *Kindel v. New York, New Haven & Hartford R. R. Co.*, 15 I.C.C. 555, 563 (1909); *Receivers & Shippers Assoc. v. Cincinnati, New Orleans & Texas Pacific Ry. Co.*, 18 I.C.C. 440, 464 (1910); *Newport Mining Co. v. Chicago & North Western Ry. Co.*, 33 I.C.C. 646, 656 (1915).

⁶⁰ See *Advances in Rates. Eastern Case*, 20 I.C.C. 243, 274 (1911); *Five Per Cent Case*, 31 I.C.C. 351 (1914).

⁶¹ See pp. 241-242, *supra*.

⁶² *North Carolina v. United States*, 325 U.S. 507, 515 (1945), note 4.

much more than they need, and others which will earn much less than they need. This is the so-called "weak-and-strong-road problem" which is considered in a later chapter.⁶³

VALUE OF SERVICE

Mention has already been made of the fact that in the *Smyth v. Ames* decision, which laid down the fair-return-on-fair-value rule, the Supreme Court also set up a value-of-service standard by saying that "what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth." The Interstate Commerce Commission's refusal to grant a 15 percent increase in rates in 1931 was based, in part, on this doctrine. The Commission quoted with approval a statement in *Corpus Juris* that "the public is entitled to demand that no more be exacted from it than the services rendered are reasonably worth, and this right takes precedence even over the right of the carrier to a fair return on its investment when the two can not stand together."⁶⁴ Such judicial support as there is for this doctrine comes largely from the decision of the Supreme Court of the United States in *Covington & Lexington Turnpike Co. v. Sandford*,⁶⁵ decided in 1896. In this case the Court said:

It cannot be said that a corporation is entitled, as of right, and without reference to the interests of the public, to realize a given per cent upon its capital stock. When the question arises whether the legislature has exceeded its constitutional power in prescribing rates to be charged by a corporation controlling a public highway, stockholders are not the only persons whose rights or interests are to be considered. The rights of the public are not to be ignored. It is alleged here that the rates prescribed are unreasonable and unjust to the company and its stockholders. But that involves an inquiry as to what is reasonable and just for the public. If the establishment of new lines of transportation should cause a diminution in the number of those who need to use a turnpike road, and, consequently, a diminution in the tolls collected, that is not, in itself, a sufficient reason why the corporation, operating the road, should be allowed to maintain rates that would be unjust to those who must or do use its property. The public cannot properly be subjected to unreasonable rates in order simply that stockholders may earn dividends.⁶⁶

This doctrine was quoted approvingly by Justices Black, Douglas, and Murphy in a recent case.⁶⁷

⁶³ Ch. XVII.

⁶⁴ Quoted in *Fifteen Per Cent Case*, 1931, 178 I.C.C. 539, 563 (1931).

⁶⁵ 164 U.S. 578.

⁶⁶ *Ibid.*, p. 596.

⁶⁷ *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575, 607 (1942).

Value of service is not a meaningful concept when applied to the general level of rates. It has meaning only when related to specific transportation services, where it often does limit the rate that can be charged for such a service. When courts and commissions invoke the value-of-service principle in general rate-level cases, they are usually faced with a situation in which conditions of demand make the application of the fair-return doctrine impossible. In other words, increases in rates would result in rates on particular commodities and hauls which would effectually stop such shipments, or would reduce the volume of traffic and result in less revenue for the railroads. The rise of competing modes of transportation, business recession, changes in the location of industries, or exhaustion of natural resources may create conditions such that a railroad or group of railroads cannot earn a fair return under any circumstances. The apparent conflict between the fair-return standard of reasonableness and the value-of-service standard is not so much a conflict between two independent standards of reasonableness as it is a conflict which sometimes appears between the fair-return standard and stubborn economic facts. When the conflict appears, the fair-return standard has to yield because the conditions of demand impose limitations on what can be charged.⁶⁸

THE RATE LEVEL BEFORE 1920

By reference to the chart on page 12, showing revenues per ton-mile received by the railways, it will be seen that average revenues per ton-mile tended to decline until 1916; but after that date they rose rapidly, culminating in a peak in 1921, from which there has been considerable recession. Beginning in 1910, the railroads sought to increase freight rates in order to meet rising costs of operation. Numerous cases came before the Interstate Commerce Commission from 1910 to 1917 which involved general increases in rates.⁶⁹

As a result of these cases, the carriers obtained advances in rates,

⁶⁸ There may also be situations in which there is a lack of adjustment of facilities to traffic, and where high rates, although economically possible, would be deemed unjust and unreasonable because of the overcapacity in the industry. The fair-return doctrine can be adjusted to this situation, however, by making allowance in the rate-making values for the condition of overcapacity.

⁶⁹ The principal cases were *Advances in Rates, Eastern Case*, 20 I.C.C. 243 (1911); *Advances in Rates, Western Case*, 20 I.C.C. 307 (1911); *The Five Per Cent Case*, 31 I.C.C. 351 (1914), 32 I.C.C. 325 (1914); *1915 Western Rate Advance Case*, 35 I.C.C. 497 (1915); *The Fifteen Per Cent Case*, 45 I.C.C. 303 (1917). During the war the Director General increased rates about 25 percent, effective in 1918.

although not so great as they desired and felt necessary in view of rising costs of operation. The public, accustomed for many years to declining rates, was not sympathetic with the attempts of the carriers to increase rates, and the Interstate Commerce Commission was slow to assume much responsibility for protecting railroad earnings. It must be remembered that the Commission had been created to protect the public from unreasonably high and discriminatory rates, and not to protect the carriers from low rates. The whole machinery and processes of regulation, designed to protect the public from excessive charges, operated to delay the process of increasing rates made necessary by rising costs of operation.

TABLE XIX
RAILWAY EARNINGS—1908–1920

	Return on Book Value ⁷⁰
1908.....	4.89%
1909.....	5.38
1910.....	5.68
1911.....	4.92
1912.....	4.69
1913.....	5.01
1914.....	4.12
1915.....	4.17
1916.....	6.17
1917.....	5.31
1918.....	3.83
1919.....	2.64
1920.....	0.35

The earnings of the railways during this period are shown in Table XIX. The earnings are expressed as a percent of book value or recorded investment in road and equipment with certain adjustments. It should be recognized that the investment figures for much railroad property antedate effective accounting regulation, and are therefore unreliable and often inflated. Neither do the investment figures make adequate allowance for accrued depreciation. If adjustments could be made for these shortcomings the earnings of the railroads would show up somewhat better than the table indicates.

The rate cases between 1910 and 1917 showed clearly the need of an authoritative valuation of railroad property. Although the Supreme Court had enunciated the fair-value doctrine in 1898, the Commission had to decide the rate-level cases without the aid of reliable figures on railroad valuation. The Commission had frequently recommended to

⁷⁰ Taken from the annual reports of the Commission, 1919 and 1921.

Congress that it authorize such a valuation, but no action was taken until 1913 when the Valuation Act was passed.⁷¹

RATE-LEVEL CASES BETWEEN 1920 AND 1930

A substantial increase in railroad rates was made during World War I, since the Director General of Railroads ordered a 25-percent increase in 1918. Upon the return of the railroads to their owners in

TABLE XX
RAILWAY EARNINGS SINCE 1920⁷²

	Rate of Return on Property Investment
1921	3.04%
1922	3.89
1923	4.72
1924	4.64
1925	5.15
1926	5.45
1927	4.68
1928	5.07
1929	5.31
1930	3.62
1931	2.21
1932	1.37
1933	2.03
1934	2.01
1935	2.20
1936	2.95
1937	2.59
1938	1.65
1939	2.62
1940	3.02
1941	4.41
1942	6.58
1943	6.03
1944	4.87
1945	Approximately 3.90

1920, however, further increases were necessary if the railroads were to be self-supporting. In *Increased Rates, 1920*,⁷³ the Commission, in conformity with the mandates of the newly enacted Section 15a, prescribed further increases in freight rates. Increases were authorized of 40 percent in the East, 25 percent in the South and in Mountain-Pacific Territory, and 35 percent in the West. Interregional rates were increased

⁷¹ See particularly annual reports for 1903, 1905, 1907, 1908, and *Advances in Rates, Eastern Case*, 20 I.C.C. 243, 305 (1911).

⁷² Computed from data in *Statistics of Railways in the United States, 1943*, Table 155. Net Railway Operating Income as related to Investment in Road and Equipment plus Materials and Supplies less Depreciation Reserve.

⁷³ 58 I.C.C. 220 (1920).

33 $\frac{1}{3}$ percent. A general reduction of about 10 percent from these peak levels was required in *Reduced Rates, 1922*.⁷⁴ An unsuccessful effort was made by the western railroads to obtain an increase in rates in 1926 in *Revenues in Western District*.⁷⁵ In *Increased Rates, 1920*, the Commission considered the value of the railroads to be \$18,900,000,000 and 6 percent as the fair rate of return.⁷⁶ In *Reduced Rates, 1922*, 5 $\frac{3}{4}$ percent was held to be a fair rate of return.

The earnings of the railways on their book investment during this period, as well as more recently, are shown in Table XX.

RATE-LEVEL CASES SINCE 1930

The depression of the thirties greatly reduced the volume of railway traffic and created a crisis in railroad affairs. The situation was aggravated by the development of competing forms of transport, principally motor carriers. In *Fifteen Per Cent Case, 1931*,⁷⁷ a 15 percent increase in rates was denied, but the Commission authorized small increases in the form of surcharges which were to be levied temporarily. The Commission originally attached a condition that the proceeds of the surcharges should be pooled and used for the support of railroads which could not meet their interest payments and which were therefore in danger of going into the hands of receivers. The Commission later withdrew this condition,⁷⁸ but the railroads agreed that the proceeds of the surcharges should be paid over by the railroads to the Railroad Credit Corporation, a corporation created for the purpose, and from these funds loans would be made to railroads in danger of default upon their interest payments. The emergency charges were in effect from January 4, 1932, to September 30, 1933. An unsuccessful effort was made by various interests to bring about a general reduction in rates in 1933, but the Commission in *General Rate Level Investigation, 1933*⁷⁹ found that existing rates were not unreasonable.

In 1935 the carriers again sought an increase in rates, and in *Emergency Freight Charges, 1935*,⁸⁰ temporary increases were again author-

⁷⁴ 68 I.C.C. 676 (1922).

⁷⁵ 113 I.C.C. 3 (1926).

⁷⁶ The Act of 1920 fixed 5 $\frac{1}{2}$ percent as the rate of return deemed fair for a period of two years, but the Commission was empowered to add one-half of 1 percent to make provision for new capital requirements.

⁷⁷ 178 I.C.C. 539 (1931).

⁷⁸ 179 I.C.C. 215 (1931). A further supplemental report is in 191 I.C.C. 361 (1933).

⁷⁹ 195 I.C.C. 5 (1933).

⁸⁰ 208 I.C.C. 4 (1935); 215 I.C.C. 439 (1936); 219 I.C.C. 565 (1936).

ized. These charges were continued until December 31, 1936, but the Commission refused to permit them to be extended beyond that date. As partial compensation for the loss of the emergency charges, rates on certain commodities were increased in 1937 as a result of the Commission's decision in *General Commodity Rate Increases, 1937*.⁸¹ In a short time, however, the carriers were again before the Commission this time requesting a 15 percent increase in rates. The request was denied in *Fifteen Percent Case, 1937-1938*,⁸² but increases of about 10 percent were authorized with numerous exceptions.

Following an increase in railroad wages in 1941 and rising costs of certain materials and supplies occasioned by the war, the carriers sought a further increase in rates of 10 percent. In *Increased Railway Rates, Fares, & Charges, 1942*,⁸³ the Commission authorized a 6 percent increase in freight rates, again with numerous exceptions, and an increase of 10 percent in passenger fares. Because these increases were based on the emergency created by the war, they were to expire six months after the termination of the war. Because of the large volume of traffic and increased revenues of the railroads which grew out of war conditions, these increases were temporarily suspended on May 15, 1943, and the suspension was subsequently renewed from time to time.⁸⁴

In April, 1946, substantially all the railroads applied for authority to increase freight rates about 25 percent, with numerous exceptions, and to continue the wartime level of passenger fares. These increases were sought because of the increased operating costs resulting from higher wages and higher prices, coupled with the belief that the volume of traffic would decline abruptly from wartime levels. In June the Commission, as a temporary measure, allowed the carriers to restore the 6 percent increase authorized in 1942 and later suspended, and granted a further increase of 5 percent in Eastern Territory.⁸⁵ In December, in a supplemental report, permanent increases averaging 17.6 percent above the pre-war levels were authorized.

In the rate-level cases which came before the Commission in the thirties and forties, there was little controversy over what constituted fair value or a fair rate of return. In the earlier of these cases it was

⁸¹ 223 I.C.C. 657 (1937).

⁸² 226 I.C.C. 41 (1938).

⁸³ 248 I.C.C. 545 (1942).

⁸⁴ 255 I.C.C. 357 (1943); 256 I.C.C. 502 (1943); 258 I.C.C. 455 (1944); 259 I.C.C. 159 (1944).

⁸⁵ *Increased Railway Rates, Fares, & Charges, 1946*, 264 I.C.C. 695 (1946).

admitted that it was impossible, under the conditions of industrial depression and increased competition from other modes of transport, for the railroads to earn a fair return upon any conventional rate base. Such increases as were granted during the depression were to avoid further railroad defaults in interest payments; the later increases were to compensate for increased wages or other costs of operation.

The earnings of the railroads since 1920 are shown in the table on page 365.

GOVERNMENT SUPPORT OF RAILROAD CREDIT IN EMERGENCIES

The comparatively low earnings of the railroads even in normal times have made it necessary for the Government to come to the aid of the railways in time of crisis. Twice in recent years this has been done.

The first time that this was done was upon the termination of Federal operation in 1920. The financial aid provided at that time was discussed in a previous chapter.⁸⁶ The Government again came to the aid of the railroads during the depression which began in 1929. During this period the Government loaned money to the railroads through the Reconstruction Finance Corporation—a corporation set up in 1932 to aid banks, railroads, and other industries. Loans to railroads from the Reconstruction Finance Corporation, to December 31, 1941, had exceeded \$851,000,000.⁸⁷

Government loans to railroads for financing maintenance work and equipment purchases were also authorized by the National Industrial Recovery Act, passed in 1933. Approval of the Interstate Commerce Commission had to be obtained for these loans. While this provision of the Act was effective—1933 to 1937—the Commission approved loans aggregating more than \$231,000,000.⁸⁸

SELECTED REFERENCES

General treatments of the rate-level problem may be found in H. B. Vanderblue and K. F. Burgess, *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), ch. VIII; W. T. Jackman, *Economics of Transportation* (Chicago, A. W. Shaw, 1926), pp. 221-262; Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XV; Kent T. Healy, *The Economics of Transportation in America* (New York, Ronald Press, 1940), pp. 507-508; Truman C. Bigham, *Transportation; Principles and Problems* (New York, McGraw-Hill, 1946), ch. 9.

⁸⁶ Pp. 249-251, *supra*.

⁸⁷ *Report of the Reconstruction Finance Corporation* (mimeographed, 1945).

⁸⁸ Computed from annual reports of the Interstate Commerce Commission.

Criticism of any attempt to limit railway earnings is expressed in A. T. Hadley, "Principles and Methods of Rate Regulation," 16 *Yale Review* (1927). A similar view is defended in two articles by Philip Cabor: "Public Utility Rate Regulation," 7 *Harvard Business Review* 257, 413 (1929); and "Four Fallacious Dogmas of Public Utility Regulation," 7 *Public Utilities Fortnightly* 719 (1931). A criticism of these views with particular reference to light and power rates but applicable in large measure to railway rates is H. M. Gray, "Competition as a Basis for Electric Light and Power Rates," 5 *Journal of Land and Public Utility Economics* 242 (1929).

The most thorough treatment of the Commission's handling of the rate level is in I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), ch. XIV.

CHAPTER XVI

FAIR VALUE AND RATE OF RETURN

ALTHOUGH the Supreme Court of the United States declared in *Smyth v. Ames* that the basis of all calculations as to the reasonableness of the rate level was the "fair value" of the carrier's property, it did not specify very definitely what constituted "fair value." An enormous amount of controversy and litigation has ensued over the meaning of "fair value," and how it can be ascertained. Some aspects of the controversy, both economic and legal, are discussed in the present chapter.

FAIR VALUE AND MARKET VALUE

In approaching the valuation problem, one thing must be made clear at the outset: "fair value" is not value in the economic sense. To the economist, value is exchange value or market value; hence the value of a railroad or of any income-producing property is dependent upon the earnings it yields. To a buyer or to a seller, a railroad is worth the capitalized value of the income which it can be expected to produce. But the income which a railroad will produce depends upon the rates charged. We cannot base rates on a value which is dependent upon the rates. If market value were used as a rate base, it would tend to legalize existing rates, whether they were high or low.

Although rates cannot be based on value in the ordinary sense of the word without destroying the right to regulate, railroads and public utilities argued for a long time that value for rate-making purposes is value in the economic sense, unless perchance the earnings are so low that market value is less than the cost of reproducing the road at current prices.¹ From a purely legalistic point of view this position is logical. The "fair-value" doctrine was based on a supposed analogy between rate making and condemnation of property under the right of eminent

¹ See Guernsey, N. T., *The Regulation of Public Utilities*, an address (1916), pp. 28-29, also "Value in Confiscation Cases," 77 *University of Pennsylvania Law Review* 575 (1929); Butler, Pierce, "Valuation of Railroad Property for Purposes of Rate Regulation," 23 *Journal of Political Economy* 17 (1915); Ransom, W. L., "Some Aspects of the Valuation of Private Property for Public Uses," 2 *Journal of Land & Public Utility Economics* 1 (1926); Craven, Leslie, "Railroad Valuation—A Statement of the Problem," 9 *American Bar Association Journal* 681, 801 (1923). For views of the railroads as shown in briefs in valuation cases, see Tunell, G. C., "Valuation for Rate Making and Recapture of Excess Earnings," 35 *Journal of Political Economy* 725 (1927).

domain. If the government takes private property for a public use, it must pay the owners just compensation. This means the value of the property in the ordinary sense of the word: market value or exchange value. It is logical, therefore, to urge that the same kind of value fixes the limits below which rates cannot be reduced by regulatory authorities without confiscating property.² But logical as this reasoning may be, the fact remains that to base rates on value in the economic sense would be to legalize existing rates and to deny the right of the state to interfere with them.

Recognizing that circular reasoning was involved if "fair value" was affected by earnings, the Supreme Court eventually came to reject earning power as a measure of value. In the Minnesota Rate Cases in 1913, the Supreme Court said: "The value of the use, as measured by return, cannot be made the criterion when the return itself is in question."³ In a later case the Court said: ". . . when rates themselves are in dispute, earnings produced by rates do not afford a standard for decision."⁴ The Supreme Court has also excluded from consideration in valuation cases certain intangible elements of value because of their dependence upon earnings.⁵ Notwithstanding the Court's rejection of elements of value that are important in determining "value" in the economic sense, the Court continued with the pretense that it was trying to find the "value" of the property, even though the usual measure of value had to be rejected. Since earning power had to be excluded from consideration because of the circular reasoning involved, the Court fell back on original cost and cost of reproduction as indicators of value, although both are largely irrelevant if real value is sought. By using these inferior measures of value, instead of earning power, the courts thought that they had avoided the circular reasoning involved in basing rates on earnings. However, if, by using an inferior measure of value, they should hit upon real value, the result would be the same as if rates had been based on earnings. If the use of the inferior measure of value resulted in a rate base different from real value, value would not have been found. The fact that value for rate-making purposes is not and cannot be "value" in the usual sense was finally recognized and pointed

² The condemnation analogy was reiterated by the Supreme Court as late as 1935 in *West v. Chesapeake & Potomac Telephone Co.*, 295 U.S. 662, 671.

³ 230 U.S. 352, 461.

⁴ *Los Angeles Gas Co. v. Railroad Commission of California*, 289 U.S. 287, 305 (1933).

⁵ See pp. 401-402, *infra*.

out by the Supreme Court in 1944. In *Federal Power Commission v. Hope Natural Gas Co.* the Court said:

The fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated. But the fact that the value is reduced does not mean that the regulation is invalid. It does, however, indicate that "fair value" is the end product of the process of rate-making, not the starting point as the Circuit Court of Appeals held. The heart of the matter is that rates cannot be made to depend upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.⁶

Somewhat earlier in a railroad reorganization case the Supreme Court had anticipated this recognition that value for rate-making purposes was a different thing from value in the economic sense of the word. The Court, in distinguishing value in a reorganization case from value for rate-making purposes, said: "Thus the question in a valuation for rate making is how much a utility will be allowed to earn. The basic question in a valuation for reorganization purposes is how much the enterprise in all probability can earn."⁷ Thus the Supreme Court finally came to recognize that in a valuation proceeding for rate-making purposes a commission, or court, is not *finding* value; it is deciding what the value ought to be. In so far as rates can be adjusted to yield a fair return on such value, the commission or court is *making* value, not *finding* it. Much confusion of thought can be avoided if this point is kept in mind.

The fact that "fair value" is not value in the economic sense has resulted in a tendency, in recent years, to substitute the phrase "rate base" for "value," thereby avoiding the confusion of thought engendered by using the word "value" when true value is not sought.

ELEMENTS OF VALUE

In the *Smyth v. Ames* decision the Court enumerated a number of factors to be considered in reaching a conclusion as to fair value. The following were mentioned:

1. Original cost of construction and the amount expended in permanent improvements
2. Amount of stocks and bonds
3. Value of stocks and bonds
4. Present as compared with original cost of construction

⁶ 320 U.S. 591, 601.

⁷ *Institutional Investors v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 318 U.S. 523, 540 (1943).

5. Probable earning capacity of the property
6. Sum required to meet operating expenses

Then, lest something might have been omitted from the enumeration, the Court added: "We do not say that there may not be other matters to be regarded in estimating the value of the property."⁸

Each of the factors enumerated above requires comment, for some of them are no longer considered as pertinent.

The "sum required to meet operating expenses" cannot have anything to do with the value of the property on which earnings should be permitted. The sum required to meet operating expenses has much to do with the rate level, but nothing to do with the value of the property. The inclusion of this factor in the enumeration has been referred to as "a logical curiosity."⁹

The *Smyth v. Ames* decision mentioned the amount of stocks and bonds as a factor to be considered, but as a matter of fact it is no longer given serious consideration. To allow the amount of stocks and bonds outstanding to affect a valuation for rate-making purposes would obviously put a premium on stock-watering and overcapitalization and would penalize the conservatively capitalized road. The *Smyth v. Ames* decision is itself authority for not considering capitalization except under special circumstances. The Court said:

If a railroad corporation has bonded its property for an amount that exceeds its fair value, or if its capitalization is largely fictitious, it may not impose upon the public the burden of such increased rates as may be required for the purpose of realizing profits upon such excessive valuation and fictitious capitalization . . .¹⁰

But capitalization is excessive if it exceeds the investment or the real value of the property.¹¹ This is equivalent to rejecting capitalization as an independent factor in determining the rate base. It is only valuable as indicating what the investment in the property probably was. Capitalization as a factor in determining the rate base was specifically rejected by the United States Supreme Court in the *Knoxville Water* case because of overcapitalization.¹² More recently the sound position with respect to this matter was stated by a lower Federal court as follows:

⁸ 169 U.S. 466, 547.

⁹ Clark, J. M., *Social Control of Business* (Chicago, Univ. of Chicago Press, 1926), p. 351.

¹⁰ 169 U.S. 466, 544.

¹¹ Whether the proper capitalization should be measured by investment, reproduction cost, fair value, or something else is discussed in ch. XXIV.

¹² *Knoxville v. Knoxville Water Co.*, 212 U.S. 1, 11 (1909).

We reject entirely the whole subject of capitalization, stocks, and bonds. We fail to see how it can have any pertinence. The Utility is entitled to an opportunity to earn a reasonable minimum return upon the proper rate base. How many securities are outstanding is of no importance. Cases may be conceived where the stock and bond history may have evidential value, but its bearing at the best will be remote.¹³

The value of stocks and bonds was also mentioned in *Smyth v. Ames* as a factor having some bearing upon "fair value." But this clearly must be rejected for the same reason that market value is rejected as the rate base. The value of the securities depends upon earnings, and the earnings depend upon the rates charged.

What has been said about the value of stocks and bonds applies equally to "the probable earning capacity of the property." This must be rejected because the earning power depends upon existing rates.

If we rule out the elements mentioned in *Smyth v. Ames* which are generally recognized as being entitled to no weight in a valuation case, there remain but two items: (1) original cost, including additions and betterments; and (2) replacement cost, or cost of reproduction. Commissions, unfortunately, have sometimes paid lip service to the other factors mentioned in *Smyth v. Ames*, purporting to have given them consideration in arriving at fair value.

ORIGINAL COST VERSUS COST OF REPRODUCTION

Concerning the merits of these two bases of valuation a long and bitter controversy has been waged. It will now be our task to review the arguments advanced in behalf of each and the objections that are raised thereto. In doing so we shall first consider the problem from a strictly economic point of view. We shall consider the problem as an open one, that is, as though we were free to choose the basis of valuation which seems to promise the most desirable economic results. Later we shall see what limitations have been put upon a choice by court decisions.

Before entering upon a discussion of this controversy, our terminology should be made clear. We shall use the terms "actual cost" and "original cost" synonymously. This will mean the expenditure, in cash or its equivalent, for construction of the property, including all additions and betterments which have been made. It will be assumed, furthermore, that all retirements and abandonments will be deducted. In other words, "actual cost" will mean the cost of the present property. Sometimes

¹³ *Monroe Gaslight & Fuel Co. v. Michigan Public Utilities Commission*, 292 F. 139, 150 (1923).

the term "prudent investment" is used to make provision for the deduction, from actual cost, of fraudulent, unwise, or extravagant expenditures which ought not to be a burden upon the public. What is said in following paragraphs will be equally applicable to the prudent investment basis as to the actual cost basis.

The term "cost of reproduction," or "replacement cost," means the cost that would be incurred if the railway were to be constructed at the present time and at present prices. Sometimes the term "cost of reproduction" is considered as the cost of duplicating the service, i.e., the cost of building a wholly modern plant capable of rendering the same service as the old one. We shall use the term in the former and more usual sense unless we indicate to the contrary.

One more point deserves mention before we consider the arguments in the controversy. The position of the various contestants has been largely opportunistic. For many years the representatives of the railroads and public utilities have urged that cost of reproduction was the proper basis. Representatives of the public have urged original cost or prudent investment. In general, prices rose from late in the nineties until a peak was reached about 1920. During much of this period the cost of reproduction basis would justify higher rates than the original cost basis. The positions of shipper and carrier were just the opposite when the case of *Smyth v. Ames* was before the courts in 1898. Prices had been declining since the period of Civil War inflation. The original cost of the properties was greater than the cost of reproduction; hence the public favored cost of reproduction, and the carriers favored original cost or outstanding capitalization.

ARGUMENTS FOR ACTUAL COST

We come now to the arguments advanced in favor of the original cost basis.

(1) It is the best basis to attract capital into the industry. There is no better way of inducing people to put their money into an enterprise than by paying them a stable return on what they have already put in. The original cost basis does this. Investors will consider themselves fairly treated if they are allowed a return on what they have put into railroad properties, and they will be willing to put more dollars in on the same terms. On the other hand, the cost of reproduction basis would pay investors a return, not on what they have put in, but on what they would have to put in to construct a new plant at the present time.

Sometimes this will be more than the actual investment; sometimes it will be less. The real investor, as distinguished from the speculator, will hesitate to invest money in railroad properties if uncertain that he will be allowed a return on what he has put in. This has been stated very clearly by Professor Jones: "If an investor were offered his choice between (1) 5 per cent on \$1000 and (2) 5 per cent on \$900 or \$1100, a toss of the coin to determine whether it would be \$900 or \$1100, he would choose 5 per cent on the \$1000; if he did not, he would not be an investor, but a speculator."¹⁴ And it might be added that it is upon investors, rather than speculators, that we should rely for a steady supply of capital.

The statement that the actual cost basis is the best basis to attract capital to the industry is probably true. It can be argued, however, that investors should have an income which is stable in purchasing power. The original cost basis gives the investor a stable return in dollars, but not in purchasing power. This point will be brought up again in connection with the rival basis of valuation.

(2) The original cost basis assures the public of more stable rates than the cost of reproduction basis. Original cost changes only as changes are made in investment. Cost of reproduction fluctuates constantly, and if consistently followed would require greater variations in the rates charged. Even under the cost of reproduction theory rate changes will not be made with every fluctuation in prices; but if the theory is followed consistently, changes in the price level will require greater changes in rates than if the original cost basis were used. Such fluctuations in rates are disconcerting to shippers and very disturbing to industries that have become adjusted to a particular rate level. It should not be assumed that rate fluctuations can be entirely avoided by using the original cost basis. Changes in the price level cause changes in operating expenses and necessitate rate changes. The point is that rate changes must be greater if the cost of reproduction basis of valuation is used.

(3) A valuation based on actual cost is easily kept up to date. Once the value of the properties has been made, careful accounting will indicate all changes in the rate base. Abandoned property will be written off; betterments and additions will be entered on the books as made. Cost of reproduction, on the other hand, cannot easily be kept up to date. Revaluations are constantly necessary. The cost of reproduction

¹⁴ *Principles of Railway Transportation* (New York, Macmillan, 1924), p. 283.

today is not the cost of reproduction tomorrow. Revaluations are expensive. In 1932 it had cost the Government over \$40,000,000 to find the value of the railroads on the basis of 1914 prices.¹⁵ If those valuations could be kept up to date by adding the cost of the property acquired since the valuation date, and deducting abandonments and further depreciation, that money would not be wasted. If the cost of reproduction theory is adhered to, much of the valuation work would have to be done over again from time to time, and the valuations and revaluations would be out of date before they were finished. It is possible to remove this difficulty in part by the use of index numbers especially prepared for the purpose, but there are serious limitations to the use of such index numbers.

COST OF REPRODUCTION

We will now turn to a consideration of the arguments commonly advanced in favor of cost of reproduction as a rate base.

(1) Cost of reproduction is often urged as the only practical basis of valuation on the ground that actual cost cannot be ascertained. Much of our railroad property was constructed years ago. Accounts have frequently been lost or destroyed. Even if available, the accounts are often untrustworthy, sometimes because of attempts to cover up the inflation of capitalization which often accompanied railroad construction, sometimes because the accounting practices of that day were less standardized than today. For these reasons it is urged that cost of reproduction should be used in order to arrive at the "fair value" of the property. In the early valuation cases cost of reproduction was used largely as a convenient check on probable cost in the absence of reliable accounts or because of fraudulent and excessive expenditures.

This argument has some degree of validity, but its importance has often been exaggerated. In the first place, the implication that cost of reproduction can be ascertained any more easily or accurately than an estimate of original cost is hardly warranted. Anyone familiar with the methods of determining the cost of reproduction of a railroad realizes that accuracy is impossible. Estimates by experts regarding the cost of reproduction of a given property may vary more widely than estimates of the probable original cost. The results depend largely upon the assumptions made at the outset. In estimating the cost of reproducing a railroad shall we assume other railroads in existence or not? If other

¹⁵ Testimony of A. P. Thom in *Hearings Before the Committee on Interstate & Foreign Commerce, H. of Rep., 72d Cong., 1st sess. on H.R. 7116 and 7117 (1932)*, p. 322.

railroads in the vicinity are assumed to exist and are available to bring materials, the cost of reproduction will be less than if other railroads are assumed not to be in existence. Similarly, the cost of reproducing a railroad system as a whole would be quite different from the sum of the cost of reproducing the railroads comprising the system. Again, shall we assume that a railroad bordered by agricultural lands is to be constructed through smooth fields, or shall we assume that the land would be waste land covered with timber or brush if the railroad were not in existence? If we assume the latter, substantial sums must be included for clearing, grubbing, and draining. Must we assume that the railroad to be hypothetically reconstructed would force its way through expensive real estate into the heart of a great city, or shall we assume that a newly constructed road would find this expense too great? In fact, if we assume the railroad is not in existence, might it not be necessary, in some cases, to assume that the city was but a small hamlet through which the road could be built with small expense? Different answers to these questions lead to different results in the estimates of cost of reproduction and make it clear that the figure finally reached has very little meaning and that an estimate of original cost can be made as accurately as an estimate of cost of reproduction.

But there is a second reason for minimizing the argument that original cost cannot be found. As time goes on, the cost of more and more of the railroad's property is ascertainable from records and less and less has to be estimated. This is because railroads must now keep accurate accounts. Railroads in the United States have kept accounts in accordance with a prescribed system since 1907. Additions and betterments made since then are shown at cost. Property installed to replace worn out and retired units is likewise shown by the accounts. In a case arising under the Recapture Clause of the Transportation Act, the Interstate Commerce Commission pointed out that only 35 percent of the property would have to be estimated. The Commission showed that the portion of the property for which actual cost has to be estimated will decrease "to a limit fixed by grading, tunnels, and other relatively unchanging structures, which at the present time represents not much over 10 percent of the total original cost except land, of the carriers as a whole."¹⁶

¹⁶ *Excess Income of Richmond, Fredericksburg & Potomac R. R. Co.*, 170 I.C.C. 451, 465 (1931). See also Lewis, E. I., "Railroad Valuation," 171 *Annals of the American Academy of Political and Social Science* 172 (1934), p. 177.

(2) Cost of reproduction is often urged as the proper basis of valuation on the ground that it adjusts the return of the investor to the changing purchasing power of the dollar. If it cost \$10,000,000 to build a certain railroad originally, but would cost \$20,000,000 to build it at the present time, a return upon the latter is necessary in order to give the owners the same income in terms of purchasing power that they got formerly. The statement is largely true, but a number of limitations must be made.

In the first place, the argument assumes that the cost of reproducing a railway is a good index of changes in the purchasing power of the dollar. Conceivably the cost of reproducing a railroad might double without a change in the purchasing power of the monetary unit. On the other hand, the cost of reproducing a railroad might remain the same regardless of a change in the general price level. More likely, the cost of reproducing railroads and the level of prices will move in the same direction but not necessarily to the same degree. The purchasing power of the dollar is measured by fluctuations in the prices of hundreds of commodities, not merely the changes in the prices of materials and services entering into the construction of a railway. If we wish to give investors in railways a stable return in terms of purchasing power, the use of standard index numbers of price changes would be fairer, less expensive, and more logical than the use of cost of reproduction as a rate base.

It may also be pointed out, in answer to the depreciated-dollar argument, that it is by no means certain that investors desire a variable monetary return, or would think themselves fairly treated if given a return that adjusted their compensation to the changes in the purchasing power of money. Bonds on which the payment of interest and principal is adjusted to the purchasing power of money are not particularly popular with investors. This bears witness to the preference of investors for a fixed monetary return. Perhaps this will be changed as investors become more enlightened to the uncertainties attendant upon contract obligations which call for future payments of fixed monetary sums.

There is another weakness in the depreciated-dollar argument. To double the rate-making value, because cost of reproduction is twice original cost, benefits only stockholders and not bondholders. Bonds and preferred stock comprise approximately two-thirds of the outstanding railroad securities. Double the return to the company because of higher reproduction costs, and the stockholders reap all the reward since the

holders of bonds and preferred stock receive a fixed or limited return. On the other hand, if prices should fall and cost of reproduction decline, the loss would fall upon the stockholders. Thus the use of the cost of reproduction basis would impose heavy losses upon stockholders if prices declined, and would give them speculative profits if prices rose. This result is hardly desirable in the interest of stabilizing returns to investors. Certainly it cannot be argued that such a result is required in order to be fair to investors. There would be much point to the depreciated-dollar argument if railroads were capitalized entirely by issues of common stock. But why ignore the facts? When these facts are recognized the depreciated-dollar argument falls to the ground. Not only is the argument negated, but wholly undesirable consequences result from the fluctuating income because of the manner in which it is divided between the stockholders and the bondholders. Attempts have been made to dismiss this objection by saying that in the ordinary competitive businesses reductions in earnings fall upon the stockholders, and increases in income benefit them. But this is no reason for urging that these results are desirable or that they should be made to occur in regulated industries. One object of regulation is to remove risks as far as possible from public utility enterprises to the end that capital may be obtained on the most favorable terms. Obviously any method of valuation which concentrates upon the stockholders the gains and losses arising from changes in rates tends to increase risks and introduces a speculative element in the provision for capital that is not conducive to obtaining capital at the lowest cost.

(3) The competitive-industry analogy, which, as we have seen,¹⁷ is often used to justify the fair-value doctrine, is often invoked in support of the cost of reproduction basis of valuation. Competitive industries, it is said, tend to receive a return upon the cost of reproducing their properties. Let us suppose that a manufacturing plant is constructed at a cost of \$1,000,000. Let us assume that a profit of \$80,000 is made—8 percent on the cost of the plant—and that this is the return, after considering the risks of the business, which is necessary to attract capital. The price level changes and a new plant would cost \$2,000,000. New capital would not venture into this enterprise and construct a new plant unless the profits of the old establishment rose to \$160,000—that is, 8 percent on the cost of the new plant, 16 percent on the cost of the old. On the other hand, if prices had fallen, and the million-dollar plant

¹⁷ Pp. 342-343, *supra*.

could be duplicated for \$500,000, the old establishment could not earn more than 4 percent on its cost, or a new plant would in all probability be constructed. Although this argument assumes a correspondence between profits and cost of reproduction which probably does not exist because of the imperfect working of competition, it is, nevertheless, one of the strongest arguments in behalf of cost of reproduction. The argument, however, is weak in one respect. One may question the assumption underlying the reasoning, that because a certain result is supposed to occur in a competitive industry, it should also occur in a regulated industry. This point has been made in an effective manner by Professor Bonbright. He says:

... the attempt to carry over into the field of the large-scale monopoly the same price system that is assumed to prevail in the field of the small competitive enterprise, is bound to result in a serious misfit. One reason why it is a misfit is that the competitive price system disregards so ruthlessly the financial needs of the individual producer. To the low-cost producer it yields profits far beyond the current rate of interest on invested capital; to the high-cost producer it brings deficits that spell bankruptcy and ruin. As long as competition is full and free this process, harsh though it be to the unfortunate producer, may serve very well the interests of the consumer. For what matters it to him that any one producer is crippled so long as he can turn to a more fortunate rival for his necessary services and commodities? Not so under monopoly. Not so with a railway that is alone in serving a community. For let that railway come to grief, let its credit be injured and its stock-issuing power be destroyed, and its customers will be helpless to escape the deficient service by resort to a successful rival. Why, ask the defenders of reproduction cost, should railway security holders be given any greater insurance against the fluctuation of price levels than is given to the holders of securities in an unregulated enterprise? The answer is that when the investors in small competitive enterprises fall, they may fall alone, but when the holders of railway securities fall, they force the whole community to become unwilling mourners of their downfall.¹⁸

(4) A fourth argument for cost of reproduction is based upon the difficulty of applying the actual cost basis to competing roads constructed at different times. Two roads connect A and B. One was constructed in a period of low prices; the other in a period of high prices. The actual costs of the two roads vary widely, but they compete for the same traffic and must charge the same rates. Rates which yield a fair return for the cheaper road are inadequate for the other. Now, it is urged, if cost of reproduction were made the rate base, the value of

¹⁸ "Railroad Valuation with Special Reference to the O'Fallon Decision," 18 *American Economic Review* (supplement), 181 (1928), pp. 204-205.

the two roads would be about the same, and rates could be made which are fair to both.

In answer to this argument it can be pointed out that there is no reason for believing that the costs of reproduction of the two roads would be the same. The railroad constructed first probably had the better route and will therefore have a smaller cost of reproduction than the one constructed later. Furthermore, its operating expenses will undoubtedly be lower than those of its rival. If two roads serve different intermediate points and reach common terminals by diverse routes it is clear that only as a result of chance would their costs of reproduction be the same. The New York Central, the Baltimore & Ohio, and the Pennsylvania railroads are competitive. Is there any reason to believe that the costs of reproducing these railroads would be the same? If not, the problem of making competitive rates on roads of different strength must be solved in another way. This problem is discussed elsewhere.¹⁹

(5) Cost of reproduction is sometimes defended on the grounds that the rival basis—actual cost—encourages uneconomical transportation when prices have risen, since it permits commodities to be transported that cannot pay their own way under the higher price level. Similarly the actual cost basis is said to discourage economical division of labor when prices have fallen, for rates are based on the higher cost of construction which formerly prevailed, whereas lower rates would encourage further exchange of goods between localities.

This argument overemphasizes the effect of the rate base upon particular rates. It fails to recognize that, under any system of rate making, rates on particular articles and between particular points are limited by the principle of what the traffic will bear. Regardless of the rate base, rates on particular commodities will be reduced where and when necessary to induce a profitable flow of traffic as long as direct costs are covered. The argument assumes that every item of traffic must yield a proportionate share of the return upon railway capital. It is true, of course, that the higher the rate base the higher will be the total contributions of rate payers to the owners of railroads, but the higher rates will come out of the traffic that can stand high rates; the railroad will not, in its own self-interest, charge rates that interfere with economical division of labor and exchange of commodities.

(6) Lastly, cost of reproduction is defended on the ground that it keeps railway rates in line with other prices. It permits railway rates

¹⁹ Chapter XVII.

to rise with the price level, and permits them to fall when the price level declines. The actual cost basis, on the other hand, introduces an element of rigidity in the price structure. It keeps rates down when prices rise, and keeps them from declining when prices fall. Economists frequently refer to the inflexible and rigid elements in the price structure which intensify the effect of depressions since they prevent necessary price readjustments.

This is one of the best arguments in behalf of the cost of reproduction basis, but over against it must be set the disturbing effect of fluctuating freight rates. It is true that, if prices rise, an increase in freight rates does not increase the transportation burden; but whether the increase be a percentage increase or an increase of a fixed amount on all commodities and hauls, it upsets rate relationships and competitive adjustments in industry, and by changing the comparative advantages of competing localities may impose huge capital losses upon particular industries. We are inclined to believe that the advantages of stable rates offset the disadvantages attendant upon fluctuating freight rates. The evils of rising and falling prices must be attacked directly through attempts to control the price level, difficult as that problem may be.

CONCLUSION REGARDING THE RATE BASE

Our discussion of the controversy between actual cost and cost of reproduction as a rate base makes it clear that there are difficulties with either base. As between the two rival bases of valuation the author believes that actual cost or prudent investment is preferable from an economic point of view. Some modification should be made, however, to compensate stockholders for changes in the value of money on that part of the property represented by the stockholders' equity. This result might be worked out by giving some weight to cost of reproduction, but the simpler way is to make variations in the rate of return to be allowed.

POSITION OF THE COURTS

We now turn from a discussion of the merits of the rival bases of valuation to a consideration of the attitude of the courts. The discussion will be confined to the pronouncements of the Supreme Court of the United States. It is necessary to recognize two distinct periods in the attitude of the Court on this question. The first period extends from the *Smyth v. Ames* decision in 1898 to the decision in *Federal Power Com-*

mission v. Natural Gas Pipeline Co. in 1942.²⁰ The second period is the period following the decision in the Natural Gas Pipeline case.

COST OF REPRODUCTION AS AN ELEMENT OF VALUE

The first period may be characterized as one in which the Court insisted that cost of reproduction must be considered in valuation proceedings. Cost of reproduction was one of the elements of value which had been mentioned, along with others, in *Smyth v. Ames*.

In the early cases, cost of reproduction was considered to be of significance largely because original costs were difficult to ascertain, or were inflated, or represented fraudulent and uneconomical expenditures. Thus cost of reproduction was a means of checking on what the property probably cost, or what it ought to have cost. In one case, the Court said: "The property may have cost more than it ought to have cost, and its outstanding bonds for money borrowed and which went into the plant may be in excess of the real value of the property."²¹ Accordingly the Court endeavored to find what it called "the reasonable value of the property." The same point was involved in another case where the Court said:

It is no longer open to dispute that under the Constitution "what the company is entitled to demand, in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public. That is decided, and is decided as against the contention that you are to take the actual cost of the plant, annual depreciation, etc., and to allow a fair profit on that footing over and above expenses. . . . Yet the only evidence in favor of a higher value in the present case, is the original cost of the work, seemingly inflated by improper charges to that account and by injudicious expenditures. . . . No doubt cost may be considered, and will have more or less importance according to circumstances."²²

This position of the Supreme Court was reiterated in the Minnesota Rate Cases where the Court said: "It is clear that in ascertaining the present value we are not limited to the consideration of the amount of the actual investment. If that has been reckless or improvident, losses may be sustained which the community does not underwrite."²³ It should be noted that the above objections to the actual cost basis would not apply to the prudent investment basis, which is a modification of the actual cost basis to meet these very objections.

²⁰ 315 U.S. 575.

²¹ *San Diego Land & Town Co. v. National City*, 174 U.S. 739, 757 (1899).

²² *San Diego Land & Town Co. v. Jasper*, 189 U.S. 439, 443 (1903).

²³ 230 U.S. 352, 454 (1913).

In the later cases the Court came to hold that original cost was not controlling because values may also have increased, and the companies were lawfully entitled to the benefits of such increases. "If the property, which legally enters into the consideration of the question of rates, has increased in value since it was acquired, the company is entitled to the benefit of such increase."²⁴ Again, in the Minnesota Rate Cases the Court said:

As the company may not be protected in its actual investment, if the value of its property be plainly less, so the making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law.²⁵

These expressions imply that cost of reproduction is a better index of present value than is original cost. The ruling that original cost is not a good measure of "present value" if price levels have changed became of great importance after World War I. With the rapid increase in prices that occurred during and after the war a wide discrepancy appeared between original cost and cost of reproduction. In a number of cases that involved postwar valuations the principle that cost of reproduction should be given substantial weight was insisted upon by the Supreme Court. In the *Southwestern Bell Telephone Case*, decided in 1923, the Supreme Court overruled the Public Service Commission of Missouri which had valued the properties of the telephone company on the basis of pre-war prices. The Court said:

It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded such a forecast becomes impossible. Estimates for tomorrow cannot ignore prices of today.²⁶

In the *Bluefields Water Works case* the Court similarly overruled the West Virginia Commission which had valued the company largely on the basis of original cost.

The record clearly shows that the commission in arriving at its final figure did not accord proper, if any, weight to the greatly enhanced costs of construction

²⁴ *Willcox v. Consolidated Gas Co.* 212 U.S. 19, 52 (1909).

²⁵ 230 U.S. 352, 454 (1913).

²⁶ *Southwestern Bell Telephone Co. v. Public Service Commission of Missouri*, 262 U.S. 276, 287-288 (1923).

in 1920 over those prevailing about 1915 and before the war, as established by uncontradicted evidence; and the company's detailed estimated cost of reproduction new, less depreciation, at 1920 prices, appears to have been wholly disregarded. This was erroneous.²⁷

Again, in 1926, a valuation of the Indiana Commission was set aside in *McCardle v. Indianapolis Water Co.* The Commission had valued the properties at \$15,260,400. The Court found the value to be not less than \$19,000,000, a figure approaching cost of reproduction. Note the following language of the Court:

By far the greater part of the company's land and plant was acquired and constructed long before the war. The present value of the land is much greater than its cost; and the present cost of construction of those parts of the plant is much more than their reasonable original cost. In fact, prices and values have so changed that the amount paid for land in the early years of the enterprise and the cost of plant elements constructed prior to the great rise of prices due to the war do not constitute any real indication of their value at the present time. Undoubtedly, the reasonable cost of a system of waterworks, well-planned and efficient for the public service, is good evidence of its value at the time of construction. And such cost will continue fairly well to measure the amount to be attributed to the physical elements of the property so long as there is no change in the level of applicable prices.²⁸

The statement that original cost measures value only so long as there is no change in the price level, a statement repeated in a later case,²⁹ is equivalent to saying that if original cost and cost of reproduction differ, the latter is the better measure of value. The language of the Court in the Indianapolis Water case is probably the strongest ever used by the Court in behalf of cost reproduction as a measure of fair value. Throughout the period we are discussing, cost of reproduction continued to be mentioned by the Supreme Court as a factor which should receive consideration in valuations for rate-making purposes.³⁰

COST OF REPRODUCTION NOT CONTROLLING

Although cost of reproduction is a factor to be considered in arriving at fair value, and although there is some language in the decisions

²⁷ *Bluefields Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 678, 689 (1923).

²⁸ 272 U.S. 400, 410-411.

²⁹ *Clark's Ferry Bridge Co. v. Public Service Commission of Pennsylvania*, 291 U.S. 227, 234 (1934).

³⁰ *West v. Chesapeake & Potomac Telephone Co.*, 295 U.S. 662, 671-672, 678 (1935); *St. Joseph Stock Yards Co. v. United States*, 298 U.S. 38, 61 (1936); *Railroad Commission v. Pacific Gas Co.*, 302 U.S. 388, 395-396 (1938); *Driscoll v. Edison Co.*, 307 U.S. 104, 111-113 (1939).

quoted above which would seem to make it the dominant factor, the Supreme Court stated very clearly that cost of reproduction was not controlling in valuation cases. In *Georgia Railway & Power Co. v. Railroad Commission of Georgia*, another case arising after World War I, the Georgia Commission was upheld in its refusal to make cost of reproduction the controlling element in a valuation. The company contended that the law required a valuation based on current cost of reproduction. In reply the Court said:

The case is unlike *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission*. Here the Commission gave careful consideration to the cost of reproduction; but it refused to adopt reproduction cost as the measure of value. It declared that the exercise of a reasonable judgment as to the present "fair value" required some consideration of reproduction costs as well as of original costs, but that "present fair value" is not synonymous with "present replacement cost," particularly under abnormal conditions. . . .

The refusal of the Commission and of the lower court to hold that, for rate-making purposes, the physical properties of a utility must be valued at the replacement cost less depreciation was clearly correct.³¹

Even the Indianapolis Water case, which is often cited as authority for basing rates on current cost of reproduction, is not inconsistent with the statement that cost of reproduction is not controlling, for in that case the figure requested by the company and adopted by the Court as the value of the property was \$19,000,000 while the cost of reproduction was \$22,500,000. And in the St. Louis & O'Fallon case, in which the Court overruled the Interstate Commerce Commission because it did not give consideration to cost of reproduction, the Court refused to consider the question of the amount of weight that should be given to cost of reproduction, and added: "No doubt there are some, perhaps many, railroads the ultimate value of which should be placed far below the sum necessary for reproduction."³² Refusal of the Court to make cost of reproduction controlling is also shown in the Los Angeles Gas case. "This Court has . . . declared that, in order to determine present value, the cost of reproducing the property is a relevant fact which should have appropriate consideration . . . But again, the Court has not decided that cost of reproduction furnishes an exclusive test."³³

³¹ 262 U.S. 625, 629-630 (1923).

³² 279 U.S. 461, 487 (1929).

³³ 289 U.S. 287, 307 (1933). Repeated in *Railroad Commission of California v. Pacific Gas Co.*, 302 U.S. 388, 398 (1938).

WEIGHT TO BE ACCORDED REPRODUCTION COST

The decisions reviewed above indicate that both original cost and cost of reproduction were to be considered in arriving at "fair value," but that neither was controlling. The Court never said how much weight should be accorded to each factor. In *Smyth v. Ames* the Court said that the various factors were "to be given such weight as may be just and right in each case." And in the Minnesota Rate cases the Court said: "The ascertainment of . . . value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts."³⁴ The Court took a similar stand in later cases.³⁵

Controversy developed within the Supreme Court, however, over what constituted giving "consideration" to cost of reproduction. Two interpretations of the requirement that a commission must consider cost of reproduction were possible. One was that the commission must have evidence relating to cost of reproduction, but that it was free to give it whatever weight, if any, seemed just and right under the circumstances. The other view was that to give consideration to cost of reproduction meant that it must be accorded some weight, that is, that it must necessarily affect the result reached. The former view of the law was clearly set forth by Justice Brandeis in his dissenting opinion in the O'Fallon case, a case involving a valuation made by the Interstate Commerce Commission in the administration of the Recapture Clause.

Unless . . . Congress required the Commission, not only to consider evidence of reconstruction cost in ascertaining values for rate making purposes under §15a, but also to give, in all cases and in respect to all property, some weight to evidence of enhanced reconstruction cost, even if that evidence was not inherently persuasive, the Commission was clearly authorized to determine for itself to what extent, if any, weight should be given to the evidence.³⁶

Justice Stone expressed a similar view of the law.³⁷ Although the majority of the Court, in overruling the Commission, insisted that the question of weight to be accorded to cost of reproduction was not before it, a reasonable interpretation of the decision is that the Court meant that some weight should be given to cost of reproduction. The Commission had "considered" cost of reproduction, in that it had estimates of that

³⁴ 230 U.S. 352, 434 (1913).

³⁵ *McCardle v. Indianapolis Water Co.*, 272 U.S. 400, 410 (1926); *Los Angeles Gas Co. v. Railroad Commission of California*, 289 U.S. 287, 308 (1933).

³⁶ 279 U.S. 461, 494 (1929).

³⁷ *Ibid.*, pp. 551-552.

cost, but had decided that under the circumstances current cost of reproduction should be given no weight. Justice Stone, in interpreting the decision of the majority, said:

I cannot avoid the conclusion that in substance the objection, now upheld, to the order of the Commission is not that it failed to consider or give appropriate weight to evidence of present reproduction cost of appellant's road, but that it attached less weight to present construction costs than to other factors before it affecting adversely the present value of the structural property.³⁸

It seems reasonable to conclude that the O'Fallon decision meant that some weight must be accorded cost of reproduction in arriving at "fair value." Such seemed to be the interpretation of the Commission, for in subsequent cases that arose under the Recapture Clause it accorded substantial weight to current cost of reproduction.³⁹ As thus interpreted the O'Fallon case went a step further than the *Smyth v. Ames* decision.

CRITICISM OF REPRODUCTION COST AS AN ELEMENT OF VALUE

The view that cost of reproduction was an element which must be considered in arriving at fair value was not unanimously accepted by the Supreme Court. Perhaps the most famous criticism of the Court's position was the separate opinion of Justice Brandeis in the Southwestern Bell Telephone case, an expression in which Justice Holmes concurred. Justice Brandeis characterized the *Smyth v. Ames* rule of determining "fair value" as "legally and economically unsound."⁴⁰ In arguing for prudent investment as a rate base Brandeis said: "The thing devoted by the investor to the public use is not specific property, tangible or intangible, but capital embarked in the enterprise. Upon the capital so invested the Federal Constitution guarantees to the utility the opportunity to earn a fair return."⁴¹ Dissatisfaction with the view that fair value was compounded of actual cost, cost of reproduction, and perhaps other factors, was later asserted by Justices Frankfurter and Black. Justice Frankfurter characterized the rule of *Smyth v. Ames* regarding valuation as "a mischievous formula for fixing utility rates,"⁴² and "useless as a guide to adjudication."⁴³

³⁸ *Ibid.*, p. 550.

³⁹ *Excess Income of Richmond, Fredericksburg & Potomac R. R. Co.*, 170 I.C.C. 451 (1931). See also *Hearings on H.R. 7116 and 7117* (1932), p. 358.

⁴⁰ 262 U.S. 276, 290 (1923).

⁴¹ *Ibid.*

⁴² Concurring opinion in *Driscoll v. Edison*, 307 U.S. 104, 122 (1939).

⁴³ *Ibid.*

Cost of reproduction as a measure of fair value had also met with criticism from public utility commissions and students of regulation. The Interstate Commerce Commission in *Excess Income of St. Louis & O'Fallon Railway* took occasion to criticize it and to defend original cost or prudent investment as a rate base.⁴⁴

Dissatisfaction with the fair-value doctrine was based on experience in the attempt to apply it. It may be well to summarize the reasons why the rule had not worked satisfactorily.

The most important reason for difficulty arose from the indefiniteness of the concept of fair value and the fact that no real standard of valuation had been set up. The Court had refused to say that original cost was the proper basis of valuation; it had likewise refused to hold that cost of reproduction was the correct basis. It required that both be considered, but refused to say what weight should be given each, or what criteria should guide a commission in combining these two "elements of value." The Court was doubtless motivated by a desire not to lay down a rigid rule which would work injustice in particular instances. Because there was no rule for combining these elements, and because of the wide spread between original cost and cost of reproduction in many instances, there was so much latitude within which judgment was to be exercised by the commission that valuations came to depend upon the bias, whim, or caprice of the persons making the valuations. The wide range of estimates of the fair value of the same property is illustrated by the New York Telephone case. A majority of the New York Public Service Commission found the value of the company's property to be approximately \$367,000,000. A Federal court, to which the case had been appealed, held the value to be \$397,000,000. A minority of the of the Commission thought the value was \$405,500,000. The "Master," appointed by the court to hear the evidence in the case, believed that the "fair value" was \$518,000,000. Two independent appraisals resulted in still higher figures, one of \$529,000,000, and the other of \$615,000,000.⁴⁵ In the St. Louis & O'Fallon case the Interstate Commerce Commission pointed out that if the railroads of the United States were valued on the basis of 1914 prices their value would have been approximately \$18,000,000,000, but in 1920, on the basis of cost of reproduc-

⁴⁴ 124 I.C.C. 3, 26-39 (1927).

⁴⁵ Related in Recommendations of Commissioners Walsh, Bonbright, and Adie in *Report of (New York) Commission on Revision of the Public Service Commissions Law* (Albany, 1930), p. 266.

tion, the value would have become \$41,000,000,000. In 1923 their value would have dropped to \$31,000,000,000.⁴⁶

Not only are great differences of opinion with respect to fair value bound to arise because of differences in the importance attached to cost of reproduction, but cost of reproduction itself is a matter of conjecture, and as we have previously noted, depends upon conditions assumed to exist when the hypothetical rebuilding of the property takes place. Mr. Justice Stone once observed that "in assuming the task of determining judicially the present fair replacement value of the vast properties of public utilities, courts have been projected into the most speculative undertaking imposed upon them in the entire history of English jurisprudence."⁴⁷ Justice Black has remarked that "commissions and courts passing upon rates for public utilities are driven to listen to conjectures, speculations, estimates and guesses, all under the name of 'reproduction costs.'"⁴⁸

The difficulties of ascertaining cost of reproduction, and the indefiniteness of the rule for determining fair value provoked controversy and litigation. It took the Interstate Commerce Commission from 1914 to 1932 to get the value of the railroads as of 1914, and the cost to the Government was over \$40,000,000, and the cost to the railroads was some \$138,000,000.⁴⁹

The litigation resulting from attempts to determine fair value adds delay and expense to the process. Two examples of such delay were pointed out by Justice Brandeis in the *St. Joseph Stock Yards* case. A rate investigation of Chicago telephone rates instituted by the Illinois Commerce Commission in 1921 resulted in an order reducing rates in 1923, but it was not until 1934 that the Commission's order was finally upheld by the courts.⁵⁰ In 1920 the Public Service Commission of New York began hearings on telephone rates in New York City, and in 1922 it required certain rates to be reduced slightly. It was not until 1934 that litigation over the Commission's order was terminated by a decision of the United States Supreme Court.⁵¹

One more difficulty with the position taken by the courts in valua-

⁴⁶ 124 I.C.C. 3, 31-32 (1927).

⁴⁷ Dissenting opinion in *West v. Chesapeake & Potomac Telephone Co.*, 295 U.S. 662, 689 (1935).

⁴⁸ Dissenting opinion in *McCart v. Indianapolis Water Co.*, 302 U.S. 419, 429 (1938).

⁴⁹ Testimony of A. P. Thom in *Hearings Before the Committee on Interstate & Foreign Commerce, H. of Rep., 72d Cong., 1st sess. on H.R. 7116 and 7117* (1932), p. 322.

⁵⁰ 298 U.S. 38, 88 (1936).

⁵¹ *Ibid.*, pp. 90-91.

tion cases deserves mention. The holding of the courts that cost of reproduction should be considered was the excuse for making fanciful claims in many public utility rate cases. Mr. Justice Black in a dissenting opinion in *McCart v. Indianapolis Water Co.* referred to an old canal, originally built by the State of Indiana for navigation purposes, which had later been acquired by the water company at a cost estimated to be about \$35,000, but for which a value of \$3,000,000 was claimed on the basis of cost of reproduction.⁵²

THE NATURAL GAS PIPELINE CASE

In 1942 the Supreme Court, in *Federal Power Commission v. Natural Gas Pipeline Co.*⁵³ opened the way for regulatory commissions to disregard cost of reproduction as an element of value, and to adopt original cost or prudent investment, if they chose. The Court did not adopt original cost or prudent investment as the proper rate base, but by implication it left the way clear for commissions to do so. The Court said:

The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. . . . Once a fair hearing has been given, proper findings made and other statutory requirements satisfied, the courts cannot intervene in the absence of a clear showing that the limits of due process have been overstepped. If the Commission's order, as applied to the facts before it and viewed in its entirety, produces no arbitrary result, our inquiry is at an end.⁵⁴

The language implies that the courts will no longer inquire into the methods of valuation used by a commission but will concern themselves only with results. The full significance of the decision might not have been fully sensed, because of the use of phrases susceptible of several meanings, had it not been for the interpretation of the decision by Justices Black, Douglas, and Murphy in a concurring opinion. To them the decision started "a new chapter in the regulation of utility rates."⁵⁵ "As we read the opinion of the Court, the Commission is now freed from the compulsion of admitting evidence on reproduction cost or of

⁵² 302 U.S. 419, 437-438 (1937).

⁵³ 315 U.S. 575.

⁵⁴ *Ibid.*, p. 586. There is some language in earlier opinions to the effect that in judicial review of rate cases it is the result reached by the commission, not the method employed, which the courts are concerned with. See *Los Angeles Gas & Electric Corp. v. Railroad Commission*, 289 U.S. 287, 304-305 (1933); *West Ohio Gas Co. v. Public Utilities Commission of Ohio*, 294 U.S. 63, 70 (1935). In these cases, however, the Court continued to speak of the necessity of considering reproduction costs in valuation proceedings.

⁵⁵ 315 U.S. 575, 602.

giving any weight to that element of 'fair value.' The Commission may now adopt, if it chooses, prudent investment as a rate base."⁵⁶ The majority of the Court did not dispute this interpretation of the decision, but there remained some lingering doubt as to whether the decision threw overboard old standards as completely as Justices Black, Douglas, and Murphy believed. These doubts were dispelled in 1944 in *Federal Power Commission v. Hope Natural Gas Co.*⁵⁷ A valuation made substantially on an original cost basis was upheld by the Supreme Court. The Court expanded upon its statement in the Natural Gas Pipeline case quoted above by saying: "It is not the theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important."⁵⁸ Justice Reed, in commenting on the decision of the majority said: "I agree with the Court in not imposing a rule of prudent investment alone in determining the rate base. This leaves the Commission free, as I understand it, to use any available evidence for its finding of fair value, including both prudent investment and the cost of installing at the present time an efficient system for furnishing the needed utility service."⁵⁹ The position of the Court in the Hope case has been reaffirmed in later cases.⁶⁰

We may conclude that commissions are no longer required to consider cost of reproduction in determining the rate base. They are free to use original cost if they wish. The courts, however, still reserve the right to review rates fixed by commissions and to set them aside if the Court finds them confiscatory by whatever standard it may set up for the purpose. That standard, as elsewhere pointed out, seems at the present time to be a credit standard.⁶¹

VALUATION OF CARRIER LANDS

Under the original cost basis of valuation land would be included on the basis of what the company paid for it. Some question might be raised as to the treatment of donated lands, since they presumably cost the railroad nothing. It might be argued that they should not be included

⁵⁶ *Ibid.*, p. 606.

⁵⁷ 320 U.S. 591.

⁵⁸ *Ibid.*, p. 602.

⁵⁹ *Ibid.*, p. 623.

⁶⁰ *Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U.S. 581 (1945); *Panhandle Eastern Pipe Line Co. v. Federal Power Commission*, 324 U.S. 635, 649 (1945).

⁶¹ P. 352, *supra*.

in the rate base; or, it might be argued that they should be entered at their fair value at the time that they were given to the railroad.

The basis of valuing land most consistent with the cost of reproduction basis would be the estimated cost of reacquiring the land under present conditions. It was not uncommon in some valuations made by State commissions to multiply the estimated value of present lands by 2, $2\frac{1}{2}$, or 3, on the theory that a railroad would have to pay more for land than it was really worth if it set out to acquire land for right-of-way or other railroad uses. The Valuation Act of 1913 originally directed the Interstate Commerce Commission to find the cost of reacquiring railroad land over and above its present value. In the Minnesota Rate Cases, however, the Supreme Court held that railroad companies could not insist on more than the present value of their lands as measured by the value of adjoining lands, and that it was improper to include anything more on a supposition that a railroad would have to pay more for land than it was worth.⁶² The Valuation Act was amended in 1922 to relieve the Commission of the duty of ascertaining the cost of reacquiring land over and above its present value.

Since the decision of the Supreme Court in the Minnesota Rate Cases the approved method of valuing carrier lands has been to estimate them on the basis of the value of adjoining lands. This was the method used by the Interstate Commerce Commission in its valuations under the Valuation Act of 1913. The practice of valuing railroad lands on the basis of the present value of adjoining lands gives the railroad the benefit of the unearned increment resulting from increasing land values, a not inconsiderable item when the lands in large city terminals and the rights-of-way into the city are valued on this basis. In many cases, therefore, this method of valuation works to the advantage of the railroads. Few railroads, if their lines were nonexistent and about to be built, would go to the huge expense involved in securing an entrance into the heart of a great city. The cost would be prohibitive. Usually the city has grown up after the railroad was established. To value the railroads' lands on the basis of adjoining city property greatly increases the reported value of many roads. Under certain conditions, however, the practice of valuing lands on the basis of adjoining land works to the disadvantage of the company. This may happen, for instance, in valuing the right-of-way through a mountain pass. The adjoining land may have practically no commercial value, but the pass through the mountains

⁶² 230 U.S. 352, 451 (1913).

is of great value for a railroad right-of-way and the railroad might have paid a high price for it.

DEPRECIATION

Whether original cost, reproduction cost, or some compromise between them is used as a rate base, accrued depreciation should be deducted. No mention had been made of depreciation in *Smyth v. Ames*, but in 1909 in *Knoxville v. Knoxville Water Co.* the rule was established that depreciation should be deducted.⁶³ To this position the Court has consistently adhered. Thus in a comparatively recent case the Court said: "In determining present value, deduction must be made for accrued depreciation."⁶⁴

Although it is now accepted that depreciation should be deducted, there has been much controversy over what depreciation is. In the valuations made by the Interstate Commerce Commission the carriers argued that depreciation was synonymous with deferred maintenance. Thus, according to this view, if a railroad is kept in 100 percent operating condition, there is no depreciation to deduct. One adherent to this view defines depreciation as "a subnormal or rundown condition of a physical plant—one which is below the proper maximum condition in which the plant can be and should be permanently maintained in order to render adequate service."⁶⁵

The Interstate Commerce Commission, on the other hand, has defined depreciation as "exhaustion of capacity for service." The depreciation to be deducted in connection with any item of property is determined from the relation between the total service units in the property when new and the number that have been used up.

An article when new contains a certain number of units of service and as those units are exhausted the article depreciates. In order to make any figure, whether of original cost or cost of reproduction, representative of the condition of the property at the time of the inquiry it would seem on principle to be necessary to make due allowance for the expired units of service life.⁶⁶

Depreciation in this sense has also been defined as "the consumption of

⁶³ 212 U.S. 1 (1909).

⁶⁴ *Los Angeles Gas & Electric Corp. v. Railroad Commission*, 289 U.S. 287, 312 (1933).

⁶⁵ Riggs, H. E., "The Two Radically Different Concepts of Utility 'Depreciation,'" 9 *Public Utilities Fortnightly* 559, 560 (1932). See also by the same author, *Depreciation of Public Utility Properties* (New York, McGraw-Hill, 1922). A similar view of depreciation is taken in Blood, W. J., "The Depreciated Value of Public Utilities," 48 *Stone & Webster Journal* 733 (1931).

⁶⁶ *Excess Income of Richmond, Fredericksburg & Potomac R. R. Co.*, 170 I.C.C. 451, 468 (1931).

investment in property.”⁶⁷ Under this concept of depreciation, if the “straight-line” method of depreciation is used, a unit of property having a life of 20 years which has seen 10 years of service, would be depreciated 50 percent. It will be seen that this concept of depreciation means that there will always be substantial sums to deduct from cost new in arriving at the rate base. This is because a railroad’s property is never all new. This concept of depreciation might be termed an economic concept of depreciation, since emphasis is put upon the gradual consumption of the capital equipment in the process of production. Adherents to the deferred-maintenance idea of depreciation refer to depreciation in the economic sense as “theoretical” depreciation as though it were theoretical rather than real because it is not always observable to the eye as is physical deterioration.

The adherents to the deferred-maintenance theory of depreciation distinguish between the depreciation that must be deducted from the rate base, and depreciation in accounting where attention is focused upon the collection of a depreciation fund or retirement reserve to make good the units of property as they are worn out. From an economic point of view, depreciation in the accounting sense and in the valuation sense are the same. To the extent that property is used up in service it is a charge to operating expenses. To the extent that it is consumed, it is gone and the investment in the property is impaired. The conclusion of the Interstate Commerce Commission is sound: “. . . the same elements which produce depreciation for accounting purposes likewise produce depreciation for valuation purposes . . .”⁶⁸ Commissioner Eastman expressed the same view in different language:

To the extent that depreciation has occurred, from whatever cause, property ceases to exist. This loss of property may not for a time interfere with the efficient operation of the units in which it has occurred, any more than the gradual wearing away of a lead pencil prevents its efficient use. The effect is cumulative up to a time of maturity when the unit must be retired. Nevertheless the loss is real. . . . Whatever basis of valuation be used, in strict theory property which has ceased to exist ought not to be included in the inventory.⁶⁹

It should not be inferred from the statement that depreciation should be deducted that all railroad property is depreciable. A distinc-

⁶⁷ Staff of the Public Service Commission of Wisconsin, *Depreciation: A Review of Legal and Accounting Problems* (New York, State Law Publishing Co., 1933), p. 14.

⁶⁸ *Telephone and Railroad Depreciation Charges*, 177 I.C.C. 351, 408 (1931)

⁶⁹ Concurring Opinion in *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 56, (1927).

tion between depreciable and nondepreciable property must always be made. Thus the Interstate Commerce Commission recognized that railway land is not subject to depreciation from age, wear, or use. Grading and excavations are also nondepreciable items, and there are other items which the Commission does not depreciate.

The contention that depreciation is "deferred maintenance" has never found acceptance with the Interstate Commerce Commission. Furthermore, the definition of depreciation used by the Supreme Court in *Lindheimer v. Illinois Bell Telephone Co.* is hardly consistent with the deferred-maintenance theory. Here depreciation was defined as "the loss, not restored by current maintenance, which is due to all the factors causing the ultimate retirement of the property," and embracing "wear and tear, decay, inadequacy, and obsolescence."⁷⁰ In the same case the Court distinguished between depreciation and maintenance expense as follows: "Depreciation is defined as the expense occasioned by the using up of physical property employed as fixed capital; current maintenance, as the expense occasioned in keeping the physical property in the condition required for continued use during its service life."⁷¹ Although this case was not a valuation case it is clear that the Supreme Court recognizes the possibility of accrued depreciation in property even though the property is not undermaintained but is in 100 percent operating condition.

Support for the deferred-maintenance theory is sometimes sought in certain statements of the Supreme Court to the effect that an estimate of depreciation based on observation and inspection of the property is superior to one based on the age of property units and their assumed life. Thus in the Indianapolis Water case the Court said: "The testimony of competent valuation engineers who examined the property and made estimates in respect of its condition is to be preferred to mere calculations based on averages and assumed probabilities."⁷² The estimates of depreciation approved by the Court in that case, however, gave consideration to age and use as well as to the observed condition of the property. The most that the decision can mean is that an estimate of depreciation based on estimated service life must be checked against the observed facts.⁷³ The Committee on Depreciation of the National Asso-

⁷⁰ 292 U.S. 151, 167 (1934).

⁷¹ *Ibid.*, p. 173.

⁷² 272 U.S. 400, 416 (1926).

⁷³ See comments by the Interstate Commerce Commission on the meaning of this decision in *Lehigh Valley R. R. Co.*, 34 Val. Rep. 1, 18 (1930).

ciation of Railroad and Utilities Commissioners has pointed out very clearly that depreciation cannot be found by mere observation except when property has been poorly maintained.

A switchboard, a telephone, an electric light bulb, or a generator may be in perfect condition and highly efficient after 99 percent of its useful life has been consumed in operations. Yet if the statement in the *Knoxville Case* that property begins to depreciate from the moment of its use is accepted, it is a certainty that substantial depreciation would exist in such properties at that time. Condition may be a perfect index of the state of repair or disrepair, but only in those cases where repairs have been neglected would condition be indicative of the ultimate life of assets.⁷⁴

Elsewhere the Committee said: "Depreciation, therefore, occurs currently as service life is being consumed in operations. Its progress can be calculated . . . but it cannot be observed, because the entire process is not visible to the naked eye."⁷⁵ The idea that depreciation consists only of deferred maintenance, or impaired efficiency, is clearly unsound.

EXCEPTIONS TO THE PRACTICE OF DEDUCTING DEPRECIATION

We have seen that the courts approve of the deduction of accrued depreciation in arriving at the rate base. The policy is sound under usual conditions. Property that has been "consumed in service" should not ordinarily be included in the rate base. There are two qualifications, however, which may properly be made to the rule that depreciation should be deducted.

First, it is not economically sound to deduct accrued depreciation when the sinking-fund method of accrual has been used, but the deduction is proper when the straight-line method is used. The reason is that under the straight-line method the accumulated depreciation reserve represents a return of capital which has been used up in the business. The company may invest the money and is entitled to any return that it earns. If depreciation is not deducted from the rate base the company obtains a double return. Under the sinking-fund method, the interest earned on the moneys collected as a depreciation fund must be paid into the fund in order that the fund be large enough to retire a unit of property when it is worn out. The annual charges to depreciation would be insufficient for this purpose if the fund were not augmented by interest on the fund already accumulated. Under these conditions the amount paid into the depreciation fund by the users of the service

⁷⁴ *Report of Committee on Depreciation, 1943* (mimeographed edition), p. x-28.

⁷⁵ *Ibid.*, p. x-31.

does not represent capital returned to the owners for them to use as they please. Interest on these funds must accrue to the fund.⁷⁶

Second, under some circumstances accrued depreciation should not be deducted when a company has not been able to recoup from earnings the depreciation which has already occurred. Certainly this would be the case if such a niggardly rate policy in the past had been followed by the commission that the company had not been able to recover the cost of the property consumed in service. When the inadequacy of the depreciation reserve, however, has been due to the company's failure to make adequate annual depreciation charges to operating expense, there should be no exception to the rule that depreciation should be deducted from the rate base. This was pointed out by the Supreme Court of the United States in the Knoxville Water case. The Court held that the company should make provision from earnings for replacing property as it wears out, and then added:

If, however, a company fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon over-issues of securities, or of omission to exact proper prices for the output, the fault is its own. When, therefore, a public regulation of its prices comes under question the true value of the property then employed for the purpose of earning a return cannot be enhanced by a consideration of the errors in management which have been committed in the past.⁷⁷

The same point was made in the Galveston case,⁷⁸ and in the New York Telephone case.⁷⁹

PROPERTY ACQUIRED FROM SURPLUS

Some controversy has arisen in the past regarding the treatment of property acquired by reinvesting earnings in the business. No question arises regarding this property if earnings have not been excessive. Under such conditions the new capital has been furnished by the stockholders just as much as if the earnings had been distributed as dividends and the stockholders had been asked to purchase new securities in the company. The only differences in the two situations are that if earnings are reinvested by the company, the stockholders have been forced to contribute new capital, and no new securities are issued unless stock dividends are later issued to the stockholders. The real controversy arises when the reinvested earnings represent earnings over and above a fair

⁷⁶ The point is well stated by Whitten, *op. cit.*, vol. II, p. 1720.

⁷⁷ 212 U.S. 1, 14 (1909).

⁷⁸ 258 U.S. 388, 395 (1922).

⁷⁹ 271 U.S. 23, 31 (1926).

return. In this situation it may be argued that the users of the company's services have been forced to provide new capital, and the stockholders should not demand a return upon it. Clearly, if anyone is entitled to a return on this capital it is the users of the service who were forced to contribute it by excessive charges. There is much justification, therefore, for not including this property in the rate base under such conditions. But two difficulties are encountered in attempting to apply this principle. First, it makes regulation retroactive. If the surplus earnings were accumulated in a period when rates were not strictly regulated the company could have distributed the earnings as dividends. If the earnings were so distributed, they cannot be recovered. It would therefore seem unfair to discriminate against the company which did not distribute those earnings but reinvested them in its property. This argument, however, is not convincing if the refusal to pay out the earnings in the form of dividends was done to conceal earnings and to avoid the reduction of rates by public authority.⁸⁰ A second objection to denying a return upon the property acquired from surplus is that it usually does not benefit the people who paid the excessive rates. Past users contributed the capital; present users reap the benefit. This may not be a reason for allowing the company to reap additional profits from its ill-gotten gains, but neither does justice to present users of the service require the use of such property without charge.

But whatever may be the merits of refusing a return, under certain conditions, upon property built out of surplus, the Supreme Court has held that no distinction should be made between such property and that obtained through the sale of securities.

Constitutional protection against confiscation does not depend on the source of the money used to purchase the property. It is enough that it is used to render the service. . . . And the law does not require the company to give up for the benefit of the future subscribers any part of its accumulations from past operations. Profits of the past cannot be used to sustain confiscatory rates for the future.⁸¹

INTANGIBLE VALUES

There remains for consideration the question whether it is proper to include in a rate base so-called intangible elements of value. In *Smyth v. Ames* the Supreme Court, after listing the various "matters for con-

⁸⁰ Earnings cannot be concealed in this way if accounts are properly regulated, for earnings are disclosed regardless of dividends paid.

⁸¹ *Board of Public Utility Commissioners v. New York Telephone Co.*, 271 U.S. 23, 31-32 (1926).

sideration" in arriving at fair value, said: "We do not say that there may not be other matters to be regarded in estimating the value of the property."⁸² This opened the way for claims of allowances for various intangible elements of value. The Valuation Act of 1913, after listing specific elements of value for the Commission to find and report, directed the Commission to ascertain and report separately "other values, and elements of value, if any." The most important intangibles which have been urged from time to time as properly to be included in the rate base are good-will, franchise value, and going-value. These will be briefly considered in turn.

GOOD-WILL

Good-will is generally understood as the value arising from the preference of customers or patrons for the products or services of one concern rather than those of another. Earning power arising from such a preference is an element in arriving at the "market value" of a concern which would certainly be taken into consideration in the purchase or sale of a company. Good-will, however, has no place in a valuation for rate-making purposes. This has been definitely settled by the Supreme Court.⁸³

Refusal of the Court to approve of the inclusion of good-will is based on the monopoly position of railroad and public utilities. If good-will arises from the preference of patrons, the customers must have the possibility of choice. In other words, good-will is characteristic of competitive industries, not of monopolies. This point was made in the Consolidated Gas case: "The complainant has a monopoly in fact, and a consumer must take gas from it or go without. He will resort to the 'old stand' because he cannot get gas anywhere else."⁸⁴ In the Omaha Water case the Court said that good-will "is of little or no commercial value when the business is, as here, a natural monopoly with which the customer must deal, whether he will or no."⁸⁵

In view of the incompleteness of the railroad monopoly, especially since the development of competing transportation agencies, the sufficiency of this reasoning, as applied to railroads, may well be questioned.

⁸² 169 U.S. 466, 547.

⁸³ *Willcox v. Consolidated Gas Co.*, 212 U.S. 19, 52 (1909); *Omaha v. Omaha Water Co.*, 218 U.S. 180 (1910); *Des Moines Gas Co. v. Des Moines*, 238 U.S. 153 (1915), *Los Angeles Gas Co. v. Railroad Commission of California*, 289 U.S. 287 (1933).

⁸⁴ 212 U.S. 19, 52 (1909).

⁸⁵ 218 U.S. 180, 202 (1910).

It is fortunate, however, that the courts do not approve the inclusion of good-will as an element of value. The value of good-will depends entirely upon earning power, and its inclusion in the rate base would again involve the circular reasoning that results from basing rates on values which are themselves dependent upon rates. The Interstate Commerce Commission, following the court decisions, did not include good-will in its valuations under the Valuation Act.⁸⁶

FRANCHISE VALUE

Franchise value is the value of the company's franchise or privilege to do business. It is obvious that if a company is granted an exclusive right to do business in a certain locality a monopoly is created. If monopoly profits are permitted the franchise will come to have considerable value. If, however, rates are kept down to a fair return upon original or replacement cost of the physical property, the franchise possesses no pecuniary value in addition to the value of the physical property, although without the franchise the property would only be worth its scrap value. It is clear, therefore, that the value of a franchise over and above the value of the physical property depends upon the earnings which the company is permitted to make. To include franchise value in the rate base is equivalent to basing rates on market value or capitalized earnings. For this reason it must be excluded from the rate base. The United States Supreme Court has so held.⁸⁷

One qualification must be made to the conclusion that franchise value should be excluded. If a charge was exacted for the franchise, its cost may properly be included in the actual cost of the property. Similarly, if the state would, at the present time, demand a sum for the granting of a similar franchise, such a sum might properly be included in an estimate of reproduction cost.

GOING-VALUE

There is one intangible which is recognized by the courts as properly to be included in valuations for rate-making purposes. This is going-value, or going-concern value, described by the United States Supreme Court as that "element of value in an assembled and established plant,

⁸⁶ *Bangor & Aroostook R. R. Co.*, 97 I.C.C. 153, 165 (1925).

⁸⁷ *Cedar Rapids Gas Light Co. v. Cedar Rapids*, 223 U.S. 655 (1912); *Galveston Electric Co. v. Galveston*, 258 U.S. 388 (1922); *Georgia Railway & Power Co. v. Railroad Commission of Georgia*, 262 U.S. 625 (1923). Owing to the peculiar circumstances of the case, franchise value was included in *Willcox v. Consolidated Gas Co.*, 212 U.S. 19 (1909).

doing business and earning money, over one not thus advanced.”⁸⁸ It has also been defined as “the difference in value existing between a plant in successful operation and a similar plant assembled but not yet functioning.”⁸⁹

If going-value is a value over and above the value of the physical property it is dependent upon the earnings of the company. Being dependent upon earnings it would not be proper to include it in the rate base. Going-value, however, may be thought of in terms of development cost, i.e., the cost of establishing the business after the physical plant is completed and ready for operation. Such costs may include expenditures for advertising, soliciting, demonstrating, training employees, and the like. The theory is that these costs represent investment in the business just as much as do expenditures for physical plant. Accumulated deficits in the early years of the enterprise are also included sometimes as part of developmental costs. The Supreme Court has condemned the development-cost and early-deficit concept of going-value. In the *Galveston* case the Court sustained a lower court which had excluded the cost of developing the railway into a financially successful enterprise determined by a consideration of past deficits. The Court pointed out that the inclusion of net deficits in the rate base would be equivalent to a guarantee of a return on the investment from the beginning of the enterprise, provided only traffic would bear high enough rates. The Court then added: “The fact that a utility may reach financial success only in time or not at all, is a reason for allowing a liberal return on the money invested in the enterprise; but it does not make past losses an element to be considered in deciding what the base value is and whether the rate is confiscatory.”⁹⁰ Later, in the *Los Angeles* case, the Supreme Court said: “Deficits in the past do not afford a legal basis for invalidating rates, otherwise compensatory, any more than past profits can be used to sustain confiscatory rates for the future.”⁹¹

If the Supreme Court rejects the inclusion of development costs and early deficits in the rate base, what does the Court mean when it holds that going-value must be included? The truth of the matter seems to be that “going-value” is not something to be added to original cost,

⁸⁸ *Des Moines Gas Co. v. Des Moines*, 238 U.S. 153, 165 (1915).

⁸⁹ Waltersdorf, M. C., “Going Value in Utility Valuation,” 17 *American Economic Review* 26 (1927).

⁹⁰ 258 U.S. 388, 395 (1922).

⁹¹ 289 U.S. 287, 313 (1933). See also *Columbus Gas & Fuel Co. v. Public Utilities Commission of Ohio*, 292 U.S. 398, 412-413 (1934).

cost of reproduction, or to some compromise figure. If the physical property has been valued in an approved manner it has been valued as a going concern and nothing more need be added. Going-value, in this sense, is the difference between actual or reproduction cost, or a compromise between them, and the scrap value of the property. The Interstate Commerce Commission, in its valuation under the Valuation Act, adopted this concept of going-value. In the Texas Midland case the Commission said:

In the cost of reproduction new and cost of reproduction less depreciation figures the values assigned to the property are not those of a dead plant but of a going concern. . . . In making up the inventory we apply prices to the different parts of the property in the light of the fact that it is a railroad and doing business; otherwise the prices which would be applied would be scrap prices.⁹²

The Commission has judicial support for its refusal to make separate allowance for going-value. In the Des Moines Gas case the Court said:

When, as here, a long established and successful plant of this character is valued for rate-making purposes, and the value of the property fixed as the Master certifies upon the basis of a plant in successful operation, and overhead charges have been allowed for the items and in the sum already stated, it cannot be said . . . that the element of going value has not been given the consideration it deserves. . . .⁹³

In the Cedar Rapids Gas case the Supreme Court sustained the Iowa Supreme Court in ruling out a separate allowance for going-value. "Then again, although it is argued that the court excluded going-value, the court expressly took into account the fact that the plant was in successful operation."⁹⁴ In the Dayton Power and Light case the Supreme Court said: "Going-value is not something to be read into every balance sheet as a perfunctory addition. . . . We cannot in fairness say that after valuing the assets upon the basis of a plant in successful operation, there was left an element of going value to be added to the total."⁹⁵ Approval of this method of treating going-value is found in more recent cases.⁹⁶

Although it seems clear that no separate allowance for going-value is required if the physical property of a carrier or public utility is valued

⁹² 75 I.C.C. 1, 69-70 (1918). See also *San Pedro, Los Angeles & Salt Lake R. R. Co.*, 75 I.C.C. 463, 512 (1923); *Elgin, Joliet & Eastern Ry. Co.*, 84 I.C.C. 587, 616-617 (1924).

⁹³ 238 U.S. 153, 171 (1915).

⁹⁴ 223 U.S. 655, 669-670 (1912).

⁹⁵ 292 U.S. 290, 309 (1934). See also *Columbus Gas & Fuel Co. v. Public Utilities Commission of Ohio*, 292 U.S. 398, 411 (1934).

⁹⁶ *St. Joseph Stock Yards Co. v. United States*, 298 U.S. 38, 64 (1936); *Driscoll v. Edison Co.*, 307 U.S. 104, 117 (1939); *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575, 589 (1942).

on the basis of original cost, reproduction cost, or on some compromise figure, it has been customary for State commissions in valuing public utilities to make a separate allowance for going-value. Sometimes specific sums are found to represent going-value; sometimes a percent of the physical value is added. An analysis of utility cases in the Federal courts a number of years ago revealed that 10 percent was the most frequent allowance made.⁹⁷

FAIR RATE OF RETURN

Thus far we have discussed questions involved in the determination of the rate base. Nothing has been said about the fair rate of return which should be allowed on the rate base. The question of fair return has not received as much attention at the hands of courts and commissions as the question of "fair-value." But the rate of return is equally important. In fact, a slight variation in the rate of return may be of more importance to a large utility than a large item in the rate base over which there might be prolonged controversy.

RELATION BETWEEN VALUE AND RATE OF RETURN

Since the net income which the company is supposed to earn in the result of multiplying the rate base by the "fair rate of return," it follows that the two factors are interrelated. The influence of a high rate base can be offset by a low rate of return, or a low rate base by a high rate of return.

The interrelationship between rate base and rate of return has sometimes led to the suggestion that the rate base is of minor importance. The rate of return, it is argued, can be adjusted to bring about any desired net income. Commissioner Woodlock took this position in a dissenting opinion in the St. Louis & O'Fallon case.⁹⁸

Three objections to such manipulation of the rate of return may be noted. First, it is open to the objection raised to basing rates on capitalization, or on interest and dividend requirements. If emphasis is put on the income necessary to support the credit of the company or companies, the conservatively capitalized companies may be penalized while overcapitalized companies are rewarded for unsound financing.

Second, manipulating the rate of return to obtain a given net income determined to be adequate by some other standard is a perversion

⁹⁷ Ellis, Howell, "Is Going Value Going?" 13 *Public Utilities Fortnightly* 648, 653 (1934).

⁹⁸ 124 I.C.C. 3, 66 (1927).

of the fair-return-on-fair-value doctrine. The net earnings deemed to be reasonable are a product of the "fair value" and the fair rate of return. To take a given rate base, whether it be high or low, then determine the net earnings desired, and find a rate of return which will produce the desired result is to reverse the process prescribed in the *Smyth v. Ames* case. If the fair-return-on-fair-value standard has any meaning at all, it is that once the fair value or rate base has been determined, the company is entitled to a rate of return thereon which corresponds to what capital generally earns in an industry with comparable risk. This might be more or less than is necessary to support the present capital structure of the concern in question.

Third, legal obstacles might be encountered in adjusting the rate of return to bring in the amount of revenue determined to be reasonable by some other standard. Undoubtedly it is possible for a commission to exercise considerable leeway in adjusting the rate of return without judicial interference. Suppose, however, that the original cost of a property were \$10,000,000, but its cost of reproduction were \$30,000,000. Suppose, furthermore, that because of a conservative capitalization a return of 6 percent on the original cost would be sufficient to enable the company to meet its interest requirements and to pay generous dividends. If cost of reproduction were used as the rate base, a return of 2 percent would give the utility the necessary income. It can be seen, however, that the company could argue strongly that a rate of return of 2 percent was ridiculously low, arbitrary, and confiscatory. In view of the fact that commissions and courts generally allow much higher rates of return the court might easily rule that the rates were too low.

DIFFERENCE BETWEEN THE ATTITUDES OF COURTS AND COMMISSIONS

A difference is often observable between the attitude of courts and that of commissions in the determination of the rate of return. The courts are seeking only to avoid confiscation; the commissions have their eyes on the future and the necessity of maintaining the credit of the utility. This has sometimes led to the statement that there is a difference between the "reasonable" rate of return and the return which merely avoids confiscation.⁹⁹ The courts have so held at times.¹⁰⁰ As was pointed

⁹⁹ The contention is similar to that discussed in ch. XV, that there is a distinction between a reasonable rate or charge and a nonconfiscatory charge.

¹⁰⁰ E.g., *Columbus Gas Case*, 17 F. (2d) 630, 641 (1927); *Ann Arbor R. R. Co. v. Fellows*, 236 F. 387, 390 (1916).

out in the preceding chapter, however, the United States Supreme Court in defining a nonconfiscatory return in the *Bluefields* case said: "The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise money necessary for the proper discharge of its public duties."¹⁰¹ If this is the correct view, there need be no distinction between a reasonable rate of return and a nonconfiscatory return. To avoid confiscation the return should be one which is sufficient to attract capital, and certainly it is not necessary to pay more than this. It should be remembered, nevertheless, that a court will not substitute its judgment for that of a commission regarding the "reasonableness" of a rate or of a rate of return, but will only interfere to avoid confiscation. It follows that if a commission was so generous as to prescribe a rate of return of 8 or 9 percent this would not be disturbed by a court even though it was greater than necessary to avoid confiscation.

NO SINGLE RATE OF RETURN ALWAYS FAIR

What constitutes a fair rate of return varies with time, place, and circumstance. That the proper rate of return may vary with the times was expressed in the *Bluefields* case: "A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally."¹⁰² That the rate of return may vary with geographical location has also been recognized by the Supreme Court,¹⁰³ and is but a reflection of the well-known fact that rates of interest are not uniform throughout the world or throughout a single country. Furthermore, what is a fair return in one industry is not necessarily fair in another, because of differences in risk. Thus a higher return may be necessary for a street railway that is subject to competition from taxicabs, jitneys, and private automobiles, than for a gas or electric company.¹⁰⁴

Although it is recognized that the rate of return may properly differ in different regions, the Transportation Act of 1920 required that the rate of return chosen by the Interstate Commerce Commission as a "fair return" should be uniform throughout the country.

¹⁰¹ 262 U.S. 679, 693 (1923).

¹⁰² *Ibid.*, see also *United Railways v. West*, 280 U.S. 234, 249 (1930).

¹⁰³ See *Willcox v. Consolidated Gas Co.*, 212 U.S. 19, 48-49 (1909); *Denver v. Denver Water Co.*, 246 U.S. 178, 194 (1918).

¹⁰⁴ See *Wabash Electric Co. v. Young*, 287 U.S. 488, 502 (1933).

THE TEST OF A FAIR RETURN

Two tests are commonly used in the determination of a fair rate of return. The first is the rate necessary to attract capital. In the Bluefields case the Supreme Court emphasized this point when it referred to the necessity of providing a return which would assure confidence in the permanent soundness of the company and which would support its credit.¹⁰⁵ In the Baltimore Street Railway case the Court again pointed out the need for a return sufficient to support the company's credit and enable it to raise money for the discharge of its duties.¹⁰⁶

One difficulty with this test has already been suggested. The return necessary to attract capital in a particular case depends upon the capitalization and financial structure of the company. There is danger in making the capital structure of a particular company a determinant of the return which it should be permitted to earn. If the return necessary to attract capital is found by determining what rate applied to the rate base will produce the revenues necessary to enable the company to meet its interest payments and to pay dividends, a credit standard, rather than the fair-return-on-fair-value standard, is being used. Why bother to find the "value" of the property or rate base if the real standard is to be the interest and dividend requirements of the company? If the return-necessary-to-attract-capital test is to be applied in determining the fair rate of return, it should be the over-all rate of return on investment which is normally necessary to attract capital to that type of industry. It is a difficult test to apply because capital is attracted to an industry not so much on the basis of the over-all return on capital invested in the industry as on the basis of expected return on various types of securities offered for sale. Notwithstanding this difficulty, it needs to be emphasized that the return necessary to attract capital must be determined independently of the particular financial structure of the company or companies being regulated, or the fair-return-on-fair-value rule has degenerated into the rule that a company is entitled to rates which will support its existing capital structure, even if it is greatly overcapitalized, and is not entitled to a return in excess of what is necessary to meet interest and dividend requirements and maintain its credit, even if it is greatly undercapitalized. The fair-return-on-fair-value rule was originally devised as a means of preventing capitalization from affecting rates.

¹⁰⁵ 262 U.S. 679, 693 (1923)

¹⁰⁶ 280 U.S. 234, 252 (1930).

The second test used in the determination of the fair rate of return is the return earned by other industries in the same locality and having the same degree of risk. This test was also stated in the Bluefields case: "A public utility is entitled to such rates as will permit it to earn a return on the value of the property . . . equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties. . . ."¹⁰⁷ The difficulty with this test is that of finding industries in which the degree of risk is the same. Obviously the test must be made with industries whose returns are not also fixed by regulatory bodies, but railroads and public utilities are so different from unregulated industrial enterprises in the matter of risk that comparisons of returns are of little value. In the determination of the fair rate of return for any industry careful attention should be paid to the risks inherent in the industry, and also to the degree to which regulation affords the industry some protection from risks that attend purely competitive enterprises.

One of the effects of regulation is to eliminate many risks which characterize unregulated industries. Railroads, we have seen, are protected from ruinous rate cutting by rival lines. They are also protected from the construction of competing lines. To some extent railroads also receive protection from the competition of rival forms of transportation.¹⁰⁸ For these reasons the risks in the railroad and public utility industries are somewhat less than in unregulated industrial and commercial enterprises.

Not all the risks can be removed by regulation, however. Railroad projects may have been poorly conceived and doomed to failure; natural resources upon which a railroad depends for traffic may become exhausted; shifts in population and the migration of industries may reduce the amount of available business. Competition with newer forms of transportation may arise, and new inventions may render a large part of the investment obsolete. These and other risks must be assumed by the investors and reflected in the rate of return.

SPECIFIC RATES OF RETURN

Decisions of the Supreme Court of the United States do not reveal any specific rate of return that will always meet with the approval of

¹⁰⁷ 262 U.S. 679, 692 (1923).

¹⁰⁸ See chs. XXIX and XXXI for restrictions on highway and water carriers which may operate to restrict the amount of competition with which railroads are confronted.

the Court. The decisions emphasize the fact that no single rate of return is fair for all times, places, and under all conditions. In a number of public utility cases prior to 1920 the Supreme Court had approved of 6 percent as a fair rate of return.¹⁰⁹ Six percent, however, was found confiscatory in 1923 in the Bluefields Water case.¹¹⁰ In the Indianapolis Water case in 1926 the Court said that a reasonable rate of return would be not less than 7 percent.¹¹¹ Likewise a return of 7 percent was held to be necessary to avoid confiscation in the Pacific Gas case in 1924.¹¹² The highest return ever found confiscatory was 7.44 percent in the Baltimore Street Railway case in 1930, and the Court added: ". . . it is not certain that rates securing a return of 7½ per cent or even 8 per cent on the value of the property would not be necessary to avoid confiscation."¹¹³ In three later cases, however, 7 percent was held to be non-confiscatory.¹¹⁴ A return of 6½ percent was found nonconfiscatory in two other recent cases,¹¹⁵ and 6 percent in another,¹¹⁶ but 4.53 percent was held to be too low in the West Ohio Gas case in 1935.¹¹⁷

In 1920 Congress prescribed 5½ percent as the fair rate of return for the railroads under the provisions of Section 15a, although the Interstate Commerce Commission was authorized to add one-half of 1 percent in its discretion. In 1922 the Commission prescribed 5¾ percent as the fair rate of return. Since the amendment of Section 15a in 1933, it has been unnecessary for the Commission to fix a rate of return deemed fair.

THE FAIR-RETURN-ON-FAIR-VALUE STANDARD IN THE FUTURE

We have seen that under recent decisions of the Supreme Court of the United States regulatory commissions are freed from the necessity of considering reproduction costs in the determination of a rate base,

¹⁰⁹ *Stanslaus County v. San Joaquin Canal & Irrigation Co.*, 192 U.S. 201 (1904); *Willcox v. Consolidated Gas Co.*, 212 U.S. 19 (1909); *Cedar Rapids Gas Co. v. Cedar Rapids*, 223 U.S. 655 (1912), *Des Moines Gas Co. v. Des Moines*, 238 U.S. 153 (1915).

¹¹⁰ 262 U.S. 679.

¹¹¹ 272 U.S. 400, 420.

¹¹² 265 U.S. 403, 405.

¹¹³ 280 U.S. 234, 252.

¹¹⁴ *Wabash Valley Electric Co. v. Young*, 287 U.S. 488 (1933); *Los Angeles Gas Co. v. Railroad Commission of California*, 289 U.S. 287 (1933); *Clark's Ferry Bridge Co. v. Public Service Commission of Pennsylvania*, 291 U.S. 227 (1934).

¹¹⁵ *Dayton Power & Light Co. v. Public Utilities Commission of Ohio*, 292 U.S. 290 (1934); *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U.S. 575 (1942).

¹¹⁶ *Driscoll v. Edison Co.*, 307 U.S. 104 (1939).

¹¹⁷ 294 U.S. 63.

and are free to use actual cost or prudent investment as a rate base, subject, however, to judicial interference if the courts consider that the results are confiscatory according to a credit standard. Whether commissions will find it desirable to use prudent investment, or some other figure, as a rate base, or whether they will resort to a credit standard, remains to be seen. Section 15a of the Interstate Commerce Act now provides a credit standard, but there is no reason why the Commission could not make use of prudent investment or some other rate base if it should prove helpful. In *Increased Rates, Fares, & Charges, 1946*, the Commission apparently found it helpful to have an estimate of the "rate-making value" of the railroads.¹¹⁸

The weakness in the maintenance-of-credit standard has already been suggested. The ability of railroads to attract capital depends upon their ability to pay interest and dividends. Their interest and dividend requirements are determined by their financial structure. The use of a credit standard might, in particular instances, burden the public with rates necessary to support an unsound financial structure. In view of the fact, however, that the railroads of the United States are not as a whole overcapitalized, on the basis of investment, there is little danger that the use of a credit standard would result in excessive rates. On the other hand there is danger that the credit standard would give the railroads less than a reasonable return on actual and legitimate investment. The investment in railroads exceeds the amount of stocks and bonds outstanding largely as a result of two circumstances; first, the reinvestment of earnings over a long period, and second, financial reorganizations which have sometimes reduced the capitalization of the companies to less than the investment in their properties. Neither of these circumstances justifies limiting the earnings of the railroads to less than a fair return on their investment when it is possible to earn a return on this sum.

SELECTED REFERENCES

The literature on valuation is so extensive that much excellent material must be omitted from this list. The following books are devoted to the subject: H. B. Vanderblue, *Railroad Valuation* (Boston, Houghton Mifflin, 1917); H. H. Hartman, *Fair Value* (Boston, Houghton Mifflin, 1920); John H. Gray and J. Levin, *The Valuation and Regulation of Public Utilities* (New York, Harper's, 1933); John Bauer and Nathaniel Gold, *Public Utility Valuation for Purposes of Rate Control* (New York, Macmillan, 1934). Extended treatises with special emphasis on the position of courts and commissions are R. H. Whitten, *Valuation*

¹¹⁸ 264 I.C.C. 695, 727 (1946).

of *Public Service Corporations*, 2d ed. (New York, Banks Law Publishing Co., 1928); and J. C. Bonbright, *The Valuation of Property* (New York, McGraw-Hill, 1937). Both of the latter are in two volumes.

General works on public utilities devote considerable attention to valuation. See John Bauer, *Effective Regulation of Public Utilities* (New York, Macmillan, 1925), chs. VI-IX; Eliot Jones and T. C. Bigham, *Principles of Public Utilities* (New York, Macmillan, 1931), ch. V; W. E. Mosher and F. G. Crawford, *Public Utility Regulation* (New York, Harper's, 1933), chs. XII, XIV, and XV; C. Woody Thompson and W. R. Smith, *Public Utility Economics* (New York, McGraw-Hill, 1941), chs. 14-16; Irston R. Barnes, *The Economics of Public Utility Regulation* (New York, Crofts, 1942), chs. XI-XIV, XVI-XVII.

For rather critical discussions of the position of the courts in the past on valuation matters see R. L. Hale, "The Supreme Court's Ambiguous Use of 'Value' in Rate Cases," 18 *Columbia Law Review* 208 (1918); "The 'Physical Value' Fallacy in Rate Cases," 30 *Yale Law Journal* 710, 720, (1931); "Rate Making and the Revision of the Property Concept," 22 *Columbia Law Review* 209 (1922); D. R. Richberg, "The Supreme Court Discusses Value," 37 *Harvard Law Review* 289 (1924); "Value—by Judicial Fiat," 40 *Harvard Law Review* 567 (1927); J. B. Eastman, Dissenting Opinion in *Excess Income of Richmond, Fredericksburg & Potomac R. R. Co.*, 170 I.C.C. 451, 521-538 (1931).

Cost of reproduction is criticized, and actual cost or some modification thereof is supported in D. R. Richberg, "A Permanent Basis for Rate Regulation," 31 *Yale Law Journal* 263 (1922); J. B. Eastman, dissenting opinion in *San Pedro, Los Angeles & Salt Lake R. R. Co.*, 75 I.C.C. 463, 523-567 (1923), and concurring opinion in *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 49-59 (1927); Justice Brandeis in separate opinion in *Southwestern Bell Telephone Co. v. Missouri*, 262 U.S. 276, 289-312 (1923); John Bauer, "Rate Base for Effective and Non-Speculative Railroad and Utility Regulation," 34 *Journal of Political Economy* 479 (1926); Interstate Commerce Commission, *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 26-41 (1927); J. C. Bonbright, "Economic Merits of Original Cost and Reproduction Cost," 41 *Harvard Law Review* 593 (1928); and "Railroad Valuation with Special Reference to the O'Fallon Decision," 18 *American Economic Review* (supplement) 181 (1928).

Cost of reproduction is defended in T. F. Woodlock, dissenting opinion in *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 64-66 (1927); H. G. Brown, "Railroad Valuation and Rate Regulation," 33 *Journal of Political Economy* 505 (1925); and "Economic Bases and Limits of Public Utility Regulation," 53 *American Bar Association Proceedings* 717 (1928); F. G. Dorety, "Function of Reproduction Cost in Public Utility Valuation and Rate Making," 37 *Harvard Law Review* 173 (1923).

For the view that depreciation is impaired efficiency see H. E. Riggs, "The Two Radically Different Concepts of Utility Depreciation," 9 *Public Utilities Fortnightly* 559, 748 (1932). For the most comprehensive treatments of depreciation see Staff of Public Service Commission of Wisconsin, *Depreciation—A Review of Legal and Accounting Problems* (New York, State Law Publishing

Co., 1933); and National Association of Railroad and Utilities Commissioners, *Report of Committee on Depreciation*, 1943.

On going-value see M. C. Waltersdorf, "Going-Value in Utility Valuation," 17 *American Economic Review* 26 (1927); Ben W. Lewis, "Going-Value—Comments on Its Nature and Legal Status," 17 *American Economic Review* 657 (1927), and "Going-Value and Rate Valuation," 26 *Michigan Law Review* 713 (1928); John D. Sumner, "Going Value: Its Various Interpretations and Their Validity," 4 *Journal of Land & Public Utility Economics* 59 (1928), also "Going-Value: Its Validity and Logical Application," in the same volume, p. 113; Ben W. Lewis, "Why 'Going-Value' Should Be Discarded in Rate Making," 8 *Public Utilities Fortnightly* 588 (1931); and I. R. Barnes, "Shall Going Value Be Included in the Rate Base?" 16 *Journal of Land & Public Utility Economics* 286, 430 (1940).

Interpretation of recent decisions of the Supreme Court in valuation cases may be found in R. W. Harbeson, "Public Utility Regulation: A New Chapter," 20 *Harvard Business Review* 496 (1942), also "The Demise of Fair Value," 42 *Michigan Law Review* 1049 (1944); Martin G. Glaeser, "The United States Supreme Court Redeems Itself," 18 *Journal of Land & Public Utility Economics* 146 (1942); Paul B. Coffman, "The Direct Approach to the Fair Return Question," 30 *Public Utilities Fortnightly* 277, 350 (1942); R. L. Hale, "Utility Regulation in the Light of the Hope Natural Gas Case," 44 *Columbia Law Review* 488 (1944); Carl I. Wheat, "Does the Hope Case Mean Direct Approach to 'Fair Return'?" 33 *Public Utilities Fortnightly* 531, 617 (1944); L. Jourlmon, Jr., "The Life and Death of *Smyth v. Ames*," 18 *Tennessee Law Review* 663 (1945); Wm. H. Anderson, "The Supreme Court and Public Utility Valuation," 21 *Journal of Land & Public Utility Economics* 12 (1945).

The most comprehensive study of the fair rate of return is Nelson L. Smith, *The Fair Rate of Return in Public Utility Regulation* (Boston, Houghton Mifflin, 1932). The subject is dealt with in the standard textbooks on public utility regulation. See especially J. Bauer, *Effective Regulation of Public Utilities* (New York, Macmillan, 1925), ch. X; Martin G. Glaeser, *Outlines of Public Utility Economics* (New York, Macmillan, 1927), ch. XIX; Eliot Jones and T. C. Bigham, *Principles of Public Utilities* (New York, Macmillan, 1931), ch. VI; Wm. E. Mosher and Finla G. Crawford, *Public Utility Regulation* (New York, Harper's, 1933), ch. XVI; H. B. Vanderblue, *Railroad Valuation* (Boston, Houghton Mifflin, 1917), ch. VII; John Bauer and Nathaniel Gold, *Public Utility Valuation for Purposes of Rate Control* (New York, Macmillan, 1934), ch. XIV; C. Woody Thompson and W. R. Smith, *Public Utility Economics* (New York, McGraw-Hill, 1941), ch. 17; and Irston R. Barnes, *The Economics of Public Utility Regulation* (New York, Crofts, 1942), ch. XV.

CHAPTER XVII

THE WEAK-AND-STRONG-ROAD PROBLEM

IN THE discussion of the general level of rates the necessity of treating the railroads as a whole, or in rate groups, was pointed out. It is impossible to have different levels of rates for each railroad if the carriers are in any sense competitive. As a practical measure, rate levels must be prescribed with reference to the railroads as a whole or in groups. This was definitely recognized in the original Rule of Rate-Making, enacted in 1920. The Commission, it will be recalled, was directed to prescribe rates that would be adequate to yield the railroads as a whole or in rate groups a fair return on the aggregate value of their properties. Although the present Rule of Rate-Making makes no specific reference to railroads as a whole or in groups, the practical necessity of so treating them remains. In fact, before Section 15a was enacted the Commission had found it necessary to treat the railroads as a whole or in groups, particularly in cases involving the general level of rates. This situation gives rise to the weak-and-strong-road problem. Under any uniform level of rates some railroads will have more than adequate earnings; others will have less than adequate earnings. This chapter describes various methods of dealing with this problem which have been tried, or which have been suggested.

HIGHER RATE LEVEL

Although we have said that railroads must be treated as a whole or in groups, and that more or less uniform levels of rates are required for competing railroads, it is possible to a limited extent to make a somewhat higher level of rates on lines or in areas where operating costs are higher than prevail generally. Where this can be done, it is economically sound. From an economic point of view it is desirable that every transportation system pay its own way. Shippers located in regions where transportation costs are high should pay for the transportation which they demand. Uneconomical and wasteful transportation is encouraged if shippers situated in unfavorable locations are relieved of paying the full cost of the transportation service supplied to them. Conversely, profitable and desirable geographical division of labor may

be prevented by exacting higher rates on favored lines than the cost of performing the service.¹

The Interstate Commerce Commission has often prescribed somewhat higher rates in certain areas, or on particular lines where more difficult operating conditions prevail or where traffic is light.² It is on this basis, also, that the Commission has permitted arbitraries or differentials on short and weak lines.³ These efforts have not proved wholly successful. In some cases the addition of arbitraries for such areas and lines has apparently driven traffic away from the weak lines, and has discouraged the utilization of resources on such lines, or has retarded the economic development of those areas.⁴ It must be admitted, therefore, that the problem of weak and strong roads cannot be dealt with in this manner except to a very limited extent. Where the different railroads are competing for traffic between the same points it is obviously impossible to make rates with respect to the financial needs of each line. The weak-and-strong-road problem, therefore, must be dealt with in other ways.

DISCRIMINATORY RATES

A related method of dealing with this problem is to permit high-cost lines to charge high rates where they can obtain them, and then permit them to charge lower rates where necessary to meet the competition of lines maintaining a lower scale of rates. This is very frequently done, but not always as a means of consciously aiding the weaker lines at the expense of the stronger. Illustrations may be found in the granting of relief from the Long-and-Short-Haul Clause to weak lines in order that they may compete at through points with stronger lines without a corresponding reduction in local rates.⁵ A similar result follows from the common practice of permitting circuitous lines to meet the rates of more direct lines at competitive points without reducing rates at intermediate points on the circuitous lines.⁶ This practice permits

¹ This point of view is well set forth in Brown, H. G., "Railroad Valuation and Rate Regulation," 33 *Journal of Political Economy* 505, 522-529 (1925). It is also the view asserted by Haney, L. H., "Advantages and Disadvantages of Railway Consolidation," 14 *American Economic Review* (supplement) 88, (1924), p. 90.

² Pp. 181-183, *supra*.

³ See p. 184, *supra*.

⁴ For examples of instances in which arbitraries or differentials have apparently driven traffic away from weak lines see *Sand, Gravel, Slag, & Chert*, 165 I.C.C. 731, 771-772 (1930), and *Rates on Chert, Clay, Sand & Gravel within the State of Georgia*, 197 I.C.C. 215, 220-225, 243-244 (1933).

⁵ See ch. XXII.

⁶ *Ibid.*

circuitous lines to participate in competitive traffic that would ordinarily move over more direct routes. It aids the circuitous lines at the expense of the direct route. The practice of granting railroads fourth-section relief to meet market competition likewise has this equalizing effect. An undesirable consequence of these practices is that they lead to wasteful transportation and economic loss to society.

DIVISION OF JOINT RATES

Another method of aiding weak lines is through the division of joint rates. This method of dealing with the problem was incorporated into the Transportation Act of 1920.

Paragraph 6 of Section 15 of the Interstate Commerce Act empowers the Commission, in dividing joint rates between participating carriers, to take into consideration the revenue needs of the lines concerned. This power was exercised by the Commission in 1922 when it held that the carriers in New England were entitled to an increase of 15 percent in the divisions which they received on traffic moving into and out of New England from or to the West and South.⁷ The increase was granted largely on the basis of the need of the New England carriers for additional revenues.

The close relation between this provision of the law and the system of basing rates on aggregate property values is clearly revealed by the circumstances of the above case. In *Increased Rates, 1920*,⁸ the Commission increased freight rates in Eastern Territory by 40 percent. At that time it was estimated that an increase of about 47 percent would have been necessary to give the New England carriers a fair return, while an increase of about 28 percent would have been sufficient for the carriers in Trunk-Line Territory, and an increase of 24 percent for the carriers in Central Freight Association Territory. There was danger, however, that higher rates in New England would have an unfavorable effect upon the volume of traffic in that area. The Commission accordingly grouped together the carriers in the three territories and granted a 40 percent increase in rates. The proceeding in the New England Divisions case might therefore be deemed as supplementary to the Commission's action in *Increased Rates, 1920*, for it divided carrier revenues in such a way that the carriers which needed the larger share of the proceeds would get it.

⁷ *New England Divisions*, 66 I.C.C. 196 (1922).

⁸ 58 I.C.C. 220.

This action of the Commission was contested in the courts, but the United States Supreme Court upheld the Commission's action. The Court took particular pains to point out that the division of rates according to revenue needs was not "a partition of property." "It is not true, as argued, that the order compels the strong railroads to support the weak. No part of the revenues needed by the New England lines is paid by the western carriers. All is paid by the community pursuant to the single rate increase ordered in *Ex Parte 74*."⁹ Throughout the decision the Supreme Court recognized the relation between the practice of making rates on the basis of aggregate property values of groups of carriers and the division of these rates according to revenue needs. Mention was made of the fact that the people would not tolerate greatly increased rates, although no higher than necessary to support the weak lines, if prosperous lines were thereby allowed to earn unreasonably large returns. "The provision concerning divisions was, therefore, an integral part of the machinery for distributing the funds expected to be raised by the new rate-fixing sections. It was indeed, indispensable."¹⁰

Since 1920 this provision of the law has been used many times in aid of weak railroads, particularly of the short-line roads. The Commission does not consider revenue needs the sole factor in determining how joint rates should be divided, and it has often said that the fact that a carrier is being operated at a loss is not of itself sufficient ground on which to order an increase in divisions.¹¹

Although the power to divide joint rates somewhat according to revenue needs is a useful method of distributing earnings which are fair to the carriers in the aggregate, it is subject to certain limitations which restrict its ability to cope with the problem alone. (1) The power is limited, and quite properly so, by the necessity of leaving nonconfiscatory divisions to connecting carriers.¹² (2) The efficacy of divisions as a means of aiding weak railroads depends upon the existence of a substantial amount of traffic interchange. The device can be used only between connecting carriers, and then only when there is sufficient traffic interchange on which an order relating to divisions can operate. It cannot be used to equalize between more or less parallel lines, nor between

⁹ *New England Divisions Case*, 261 U.S. 184, 196 (1923).

¹⁰ *Ibid.*, p. 191.

¹¹ *Murray, Receiver, v. Erie R. R. Co.*, 95 I.C.C. 13, 18 (1924).

¹² *United States v. Abilene & Southern Ry. Co.*, 265 U.S. 274, 285 (1924); *Baltimore & Ohio R. R. Co. v. United States*, 298 U.S. 349, 357 (1936).

connecting lines with little traffic to interchange. (3) A third limitation upon the effectiveness of divisions as a solution of the weak-and-strong-road problem arises from the hesitancy on the part of short and weak lines about taking any action which would offend their strong connections on whom they are often dependent for favors of one sort or another. (4) Another limitation arises from the possibility that a carrier deprived of its accustomed share of a through rate may defeat the Commission's order by inducing shippers to route their traffic over routes which do not necessitate the use of the line which has attempted to obtain an increase in its divisions. This is possible, of course, only when there are alternative routes available which do not require use of the weak line. (5) Still another circumstance which restricts the usefulness of this device is the possibility of closing through routes. If a weak line is granted a larger share of the through rate than its connections are willing to concede, the through route over which the joint rate is applicable can sometimes be closed—at least if other routes are available. Although the Interstate Commerce Commission can exercise some control over the closing of through routes it cannot entirely prevent the use of this device by strong railroads to avoid giving larger divisions to weaker roads.

THE RECAPTURE CLAUSE

Another method of dealing with the weak-road problem is through recovery by the Government of the excess earnings of strong lines for the benefit of the weak. This method of dealing with the problem was incorporated into the Transportation Act of 1920. The Recapture Clause, it will be recalled, required carriers earning more than 6 percent on the value of their properties to pay one-half of the excess into a fund maintained by the Interstate Commerce Commission from which loans might be made to needy railroads.¹³

The Recapture Clause was attacked by the railroads as unconstitutional, but it was upheld by the United States Supreme Court in *Dayton-Goose Creek Ry. Co. v. United States*.¹⁴ Here again the Court called attention to the group-value system of determining rates and the necessity of supporting all the railroads in the group. "By the recapture clauses Congress is enabled to maintain uniform rates for all shippers and yet keep the net return of railways, whether strong or weak, to the varying percentages which are fair respectively for them. The recapture

¹³ For a more detailed description of the recapture provisions, see pp. 241-242, *supra*.

¹⁴ 263 U.S. 456 (1924).

clauses are thus the key provisions of the whole plan."¹⁵ Elsewhere in the same case the Court said: "The combination of uniform rates with the recapture clauses is necessary to the better development of the country's interstate transportation system as Congress has planned it. The control of the excess profit due to the level of the whole body of rates is the heart of the plan."¹⁶

The Court was not impressed by the contention that railroads were entitled to all they could earn under a level of rates prescribed by the Commission. "The carrier owning and operating a railroad, however strong financially, however economical in its facilities, or favorably situated as to traffic, is not entitled as of constitutional right to more than a fair net operating income upon the value of its properties which are being devoted to transportation. By investment in a business dedicated to the public service the owner must recognize that, as compared with investment in private business, he cannot expect either high or speculative dividends but that his obligation limits him to only a fair or reasonable profit."¹⁷ The right of the government to reduce the rates on a particular line when the carrier is earning more than a fair return would be generally acknowledged. The Recapture Clause attempted to accomplish the same result indirectly, by permitting a higher level of rates than strong carriers needed and then taking a part of the excess earnings.

The argument was also made in the Dayton-Goose Creek case that if a railroad was entitled only to a fair return, then the shippers using the road ought not to be compelled to pay higher rates than are necessary to give the road such a return. The Court did not accept this view. The rates are reasonable from the standpoint of the shipper though their net product provides more than a fair return for a particular carrier. "Rates which as a body enable all the railroads necessary to do the business of a rate territory or section, to enjoy not more than a fair net operating income on the aggregate value of their properties therein economically and efficiently operated, are reasonable from the standpoint of the individual shipper in that section."¹⁸ This is because every shipper is interested in an adequate *system* of transportation that will serve the whole area or country. "He may, therefore, properly be required in the rate he pays to share with all other shippers of the same

¹⁵ *Ibid.*, p. 480.

¹⁶ *Ibid.*, p. 485.

¹⁷ *Ibid.*, p. 481.

¹⁸ *Ibid.*, p. 480.

section the burden of maintaining an adequate railway capacity to do their business.”¹⁹

The recapture provisions were frequently criticized on the ground of alleged injustice to the stronger lines which would be deprived of the advantage of their superior location.²⁰ This argument failed to recognize the well-established rule that it is legitimate and proper to limit a carrier's return to a fair return. The argument also failed to recognize that the aggregate-return-on-aggregate-value method of rate-making prescribed by the Act of 1920 raised the level of rates on the stronger properties above what they could demand under the *Smyth v. Ames* rule. In effect the group-value system enabled the stronger lines to earn a return on the values of the weaker roads which were not able to earn a fair return on their own property.

There was another objection to the recapture provisions which we cannot consider as justified. It was often pointed out that many lines which were strong financially were not subject to the Recapture Clause because their capitalization was low relative to their rate-making value. A conservative capitalization made these railroads strong, although their earnings were moderate when related to their value. On the other hand there were many weak railroads which were weak because of excessive capitalization. The earnings of these lines, when related to the value of their properties, might be generous, but their credit nevertheless was poor. Because of this situation it was argued that the Recapture Clause did not take from the strong, but often took from the weak instead.²¹ The argument is not sound. It cannot be successfully contended that the credit of the overcapitalized roads should be bolstered up by loans, or that the conservatively capitalized roads should be penalized for their conservative financial policy. There are other remedies for financial weakness which is due to overcapitalization. Recapture was never intended and could not equitably be expected to remove this source of weakness.

Notwithstanding the logic of some sort of recapture provisions to distribute earnings accruing from uniform rates, the recapture provisions

¹⁹ *Ibid.*

²⁰ E.g., see statement of John E. Benton in *Hearings Before House Committee on Interstate & Foreign Commerce*, 72d Cong., 1st sess. on H.R. 7116 and 7117—*Railroad Legislation* (1931), pp. 140-141.

²¹ This argument was suggested by Commissioner Eastman in *Hearings on H.R. 7116 and 7117* (1932), p. 10; and by H. G. Moulton in *The American Transportation Problem* (Washington, The Brookings Institution, 1933), pp. 379-380.

of the Transportation Act failed miserably to accomplish the purpose for which they were devised, and they were retroactively repealed by the Emergency Railroad Transportation Act of 1933.²² There were numerous weaknesses in the Recapture Clause that account for its failure.

(1) An inherent weakness in the law was that it was inadequate to deal with the problem presented. This was for two reasons. It took only half the excess earnings of the stronger lines, and thus could never have completely alleviated the inequality in earnings that it sought to remedy. But to recapture all excess earnings would have discouraged efficiency and economical management. Furthermore, the loaning of the recaptured sums to weaker lines was a dubious form of relief. Under some conditions the borrowing of funds for capital expenditures might have improved the earning position of weak lines, but when the weak position of the road was due to sparsity of traffic or to difficult operating conditions, there could be little prospect of improving earnings through capital expenditures.

(2) Another weakness in the law arose from the fact that no averaging of earnings from year to year was possible. Excess earnings of one year could not be offset by inadequate earnings of other years. The law recaptured excess earnings for each and every year in which they appeared. This was particularly burdensome to many small railroads whose earnings fluctuated from year to year. Instances are on record of railroads which were in default in the payment of interest, but which had a liability to the Government under the Recapture Clause for excess earnings obtained in particular years.²³ Various attempts were made to amend the law to exempt the short-line railroads from the provisions of the clause. With the coming of the depression of the thirties this objection to the Recapture Clause became of importance to the larger and stronger lines, even to those which in normal times would have been considered as permanently in the recapture class. The depression brought home the fact that recapture based on the earnings of each year, considered independently of the earnings of other years, was unfair. This might have been remedied by permitting an averaging of earnings over a period of years, but this would have greatly increased the administrative difficulties of the law. The values and earnings for every year would have to be checked instead of only for years in which a carrier had a probable recapture liability.

²² P. 266, *supra*.

²³ See *Hearings on H.R. 7116 and 7117*, pp. 274-319.

(3) But the most serious practical objection to the Recapture Clause was due to the fact that recapturable earnings were determined by relating earnings to value. Half the earnings in excess of 6 percent on the "value" of the railroad's property were to be recovered. This at once injected the whole valuation controversy into the administration of the clause. "Fair value" is an indefinite term. It involved the exercise of judgment in weighing "elements of value" varying widely in amount, and for that reason it created an administrative difficulty in applying the law. There is every reason to believe, furthermore, that the railroads would have contested nearly every valuation on scores of grounds. The insistence of the courts at that time that current cost of reproduction must be considered in valuation proceedings meant that cost of reproduction would have to be known for every year in which a carrier might be subject to the clause. This would have made the administration of the clause difficult and expensive. After the decision of the United States Supreme Court in the O'Fallon case, which held that current cost of reproduction must be "considered" in making valuations under the Recapture Clause, a bill was introduced in Congress prescribing a definite "rate base" in lieu of "value" for the purpose of administering the section. This would have greatly simplified the problem of administering the clause but might have involved constitutional difficulties.

The Recapture Clause did not prove workable in the form in which it was originally enacted, and it was swept away by the Emergency Transportation Act of 1933 without adequate consideration of changes which might have made it workable. The financial difficulties of the railroads during the depression had much to do with its repeal. Some railroads which were having financial difficulties had recapture liabilities from earlier years hanging over them. Repeal of the Recapture Clause was therefore a form of financial relief to these carriers. Although the Recapture Clause was repealed, the problem that it was designed to solve remains. The California Railroad Commission has strongly advocated the re-enactment of recapture provisions, believing that some of the recent increases in rates would not have been necessary if there had been a recapture clause. "Rather than go on endlessly 'horizontally' increasing rates to protect the weak lines, while the earnings of the stronger lines grow fatter and fatter, there should be statutes enacted which would permit a recapture, in whole or in part, of the excess earnings of the stronger lines, to be distributed to the weaker lines."²⁴

²⁴ Decision No. 35271, *In the Matter of Application of Certain Railroads for Authority to Increase Their Rates, Fares, and Charges* (1942).

CONSOLIDATION

Another method of dealing with the weak-road problem—one also provided by the Transportation Act of 1920—was railroad consolidation. Here, in the estimation of Congress, lay the ultimate solution of the problem. The Recapture Clause and the provisions regarding the division of joint rates were temporary measures and would become unnecessary when the consolidation of railroads into a limited number of well-balanced systems of equal earning power was accomplished. The elaborate provisions of the law relating to consolidation were framed with the definite object of solving this problem.²⁵ The purpose is clearly revealed in the instructions to the Commission regarding the making of a plan of consolidation. The Commission was directed to establish systems such that under a uniform level of rates each system would be able to earn approximately the same rate of return upon the value of its property.

Railroad consolidation was supposed to eliminate the weak-and-strong-road problem in two ways. First, a combination of weak roads with the strong would eliminate, or at least obscure, the inherent weakness of certain lines. Thus the weak lines would be aided by the superior credit of the stronger, and would in part be supported by the earnings of the stronger. Second, it would be possible, in some cases, to build up strong systems by the combination of smaller lines. This is because many weak lines serve small areas, or lack access to important points of traffic interchange or points at which traffic originates. Too often this factor is overlooked, and consolidation is considered as contributing to the solution of the weak-and-strong-road problem only through saddling weak and unprosperous lines upon the stronger.

Consolidation as a solution of the problem of weak railroads has been severely criticized. Some of the more important objections require consideration. (1) One objection has been voiced by Professor Daggett.²⁶ His contention is that consolidation remedies no injustice since there is no equalization between the shareholders of the weak and strong roads. He admits that railroads may be combined in such a way that each system earns about the same rate of return, but consolida-

²⁵ For evidence of this purpose, see MacVeagh, Rogers, *The Transportation Act, 1920* (New York, Holt, 1923), pp. 275-283; and Cummins, Albert B., "The Senate Committee Railroad Bill," 8 *Proceedings of the Academy of Political Science* 518, 520-521 (1919).

²⁶ See *Principles of Inland Transportation* (New York, Harper's, 1928), pp. 462-463; and "Railroad Consolidation West of the Mississippi River," 11 *University of California Publications in Economics* 127 (1933), pp. 251-252.

tion "does not equalize . . . between the human owners of companies."²⁷ This is because the normal basis for voluntary merger is earning power. If shares in a newly organized corporation are exchanged for the shares of the consolidating corporations, they will normally be exchanged in proportion to the earnings contributed by each company to the joint undertaking. The shareholders of the weaker company are therefore in no better position than they were before the consolidation. If earnings are distributed after consolidation in the same manner as before, no injustice has been remedied.

The point to which Professor Daggett has called attention is important. Consolidation would not give the stockholders in weak lines the return which they would get if the weak lines could be made to earn a fair return on their cost. It may be seriously questioned, however, whether Congress was concerned with this particular matter. Congress was interested in preserving the existence of weak lines which were considered worth saving. Consolidation might help in this respect. Congress was also interested in creating systems of equal earning power in order to facilitate rate making. Consolidation would accomplish the latter purpose even if it did not equalize between the human owners of the companies.

(2) A second criticism of consolidation as a solution of the weak-road problem is that it is merely a device to preserve lines which cannot pay their own way or which can do so only by charging higher rates than are maintained by more favorably situated lines. Consolidation and rate equalization in such cases, it is argued, subsidize one group of shippers by a tax on others. H. G. Brown has voiced this objection thus: "Any scheme of consolidation of the 'strong' and the 'weak' roads advanced on the assumption that higher earnings of the 'strong' part of the consolidation are going to offset lower earnings of the 'weak' part so as to permit low rates on the latter, is a scheme for an indirect bounty from the more favored regions to encourage the business development of the less favored . . ."²⁸

Consolidation should not be used to preserve railroads which are not economically justified. We have already pointed out, furthermore, that it is desirable to have higher rates on less favorably located lines wherever it is possible to do so, thereby avoiding the charge that the

²⁷ *Principles of Inland Transportation*, p. 462.

²⁸ "Railroad Valuation and Rate Regulation," 33 *Journal of Political Economy* 505, 522-529 (1925).

shippers in favorably located regions are subsidizing industry in less favored areas. We have found, however, that this is impossible in many instances. We must also recall that it is justifiable to look at the transportation system as a whole, and to recognize that the public has an interest in maintaining an adequate national transportation system including lines that reach areas that do not furnish a large volume of traffic. As the Supreme Court pointed out in the Dayton-Goose Creek case, rates high enough to support an adequate system of transportation may reasonably be imposed on shippers. The shipper located on a favorably situated line is interested in having a transportation system that is adequate, and may therefore be required to pay rates high enough to support the weaker lines as well as the stronger.²⁹

(3) The foregoing criticism of consolidation as a solution of the problem under consideration was based on the assumption that the burden of supporting the weak part of a consolidated system would be shifted to the shippers located on the stronger portions. Another criticism of consolidation assumes that the burden of supporting the weak lines is thrown upon the stockholders of the stronger. It is argued that it would be unfair to those who have invested their funds in prosperous lines to be compelled to support the weaker lines through a diversion of funds to the former stockholders of the weak lines. The assumption that the earnings of investors in strong lines would be diluted is implied in the common argument that consolidation would drag down the stronger lines and weaken their credit, or that it is unfair to saddle the weak lines upon the stronger.

If consolidation proceeded along the lines suggested by Professor Daggett, that is, if the weaker road got no larger share of the joint earnings after consolidation than before, clearly the absorption of the weak railroads by the strong would not burden the stronger lines or their stockholders. If the weak line was taken in on the basis of its commercial value, that is, the capitalized value of its expected earnings if operated independently, clearly there would be no financial burden placed upon the strong.

Even if the strong railroad pays more for the weak line than its commercial value, this does not necessarily result in diverting funds from the stockholders of the stronger line to stockholders of the weaker. The inclusion of the weak line in the rate base results in higher rates than the strong line would be entitled to demand by itself. Therefore,

²⁹ See pp. 419-420, *supra*.

the use of the increased receipts to support the weaker line is no more of an appropriation of funds equitably belonging to the stockholders of the strong than was the recapture of excess earnings under the Recapture Clause, or the division of joint rates according to revenue needs as was done in the New England Divisions case. The principle is the same in all three instances. Earnings accruing to a strong line solely because the value of the weak line is included in the rate base are distributed to the lines which cannot charge higher rates. The strong are deprived of nothing to which they can justly lay claim.

Although the consolidation of weak railroads with strong would not throw a burden on the stockholders of the strong when consolidation takes place on reasonable terms, it is possible that too high a price might be paid for weak lines. If this should occur, it would result in diverting funds from the stockholders of the strong line to those who were stockholders of the weak.

Our conclusion is that consolidation of the weak with the strong roads does not necessarily weaken the strong or work an injustice to the stockholders of the strong. It does not do so when the weak line is taken in on the basis of its commercial value, and it may not work an injustice even when more than commercial value is paid. This is because the inclusion of the weak line in the rate base has raised the rate level above what it would have been if the strong line alone were considered. No consolidation of weak with the strong should be permitted to take place on such terms that the weak line constitutes a drain upon the resources of the stronger.

(4) A fourth objection to consolidation as a remedy for the weak-road problem is that it merely obscures weakness, and does not get at the causes of weakness.³⁰ Thus some roads are weak because of poor management. Here the remedy does not lie in consolidation, but in improved management. Other railroads are weak because of a poor financial structure. Where this is so, the remedy lies in a reorganization or readjustment of the financial structure. In some cases financial weakness may be due to the fact that a line has outlived its usefulness because of the exhaustion of natural resources or the decline of industries or communities which it served. Abandonment is the remedy in such a situation. Sometimes weakness is to be explained by lack of terminal facili-

³⁰ This argument is used in Splawn, W. M. W., *The Consolidation of Railroads* (New York, Macmillan, 1925), pp. 244-247; and in Haney, L. H., "Advantages and Disadvantages of Railway Consolidation," 14 *American Economic Review* (supplement) (1924), pp. 89-92.

ties. In this situation the remedy may consist of opening the terminals of other lines to the use of the weaker line. Weakness may be due to overbuilding and the construction of too many lines. Here again, abandonment of the weaker lines may be desirable.

We find no fault with this argument against consolidation as far as it goes. Consolidation is not a cure-all for every kind of weakness. It is important that causes of weakness be ascertained and the proper remedy applied whenever that is possible. But after all has been said and done, the fact remains that many lines are weak because they cannot charge higher rates than their competitors or their neighbors, and it does not seem equitable to base rates on the necessities of the weaker lines alone.

(5) Lastly, attempts to solve the weak-and-strong road problem through consolidation are criticized on the ground that strength and weakness are often temporary situations. Weak roads have the habit of developing unexpected financial strength at times, and strong lines sometimes become weak. Even if it is possible to group railroads into systems of equal earning power, there is no assurance that the situation would not change. In fact, inequality in earning power would be almost sure to develop. But the impossibility of obtaining complete and permanent equality in earning power between systems is no reason for refusing to bring about a greater degree of equality than now exists. The extreme variation in the earning power of railroads in the United States was shown in an earlier chapter.³¹ It is possible to reduce the extremes and bring about greater equality through consolidation.

The consolidation and combination provisions of the Transportation Act of 1920 proved to be a disappointment to those who hoped to see the weak-and-strong-road problem solved in this manner. There was little consolidation under the provisions of the Act. To be sure there was a great deal of "acquisition of control" through lease and stock-ownership under the Act of 1920. Many small lines, and a few large but weak roads, came under the control of larger and stronger railways in this way. But we are far from having accomplished the ideal set forth by the Act—a limited number of systems of approximately equal earning power.

It is generally conceded that either compulsion must be exercised or some inducements held out in order to obtain consolidation of the weak and strong roads. Opposition to taking over weak lines appeared at the hearings on the tentative plan of consolidation which preceded the for-

³¹ P. 351, *supra*.

mulation of the so-called "final plan." It may be well to consider the possibility of exercising compulsion or persuasion to bring about the desired consolidations.

Compulsory consolidation raises the question of constitutionality. The Transportation Act of 1920, as finally enacted, provided only for voluntary consolidation. The Senate, in the Cummins bill, had previously gone on record in favor of compulsory consolidation. It was largely because of the belief that such a provision would be unconstitutional that the compulsory feature was eliminated in the conference bill which finally became the Transportation Act of 1920. There are some writers, however, who believe that compulsory consolidation would be constitutional.³²

Congress believed that the provisions of the Recapture Clause would afford sufficient incentive to induce the stronger lines to take over the weak. It was felt that a railroad which was subject to the Recapture Clause would take over a weak carrier if it might thereby avoid recapture liability. To illustrate: Suppose railroad A, having a rate-making value of \$100,000,000 earns \$8,000,000—8 percent upon the value of its property. With the Recapture Clause in effect its earnings would be divided into three parts—\$6,000,000 would be left undisturbed by the law, \$1,000,000 would be payable to the Government, and \$1,000,000 would be impounded in a special reserve fund to be drawn upon only in years when the carrier failed to earn interest and dividends. Suppose railroad B, also having a rate-making value of \$100,000,000, is able to earn 3 percent upon the value of its property. If railroads A and B should combine, the rate-making value would be \$200,000,000. The earnings of the combined properties—assuming no economies were effected through consolidation—would be \$11,000,000 or 5½ percent upon the value of the properties. By consolidating with B, railroad A would not only obtain the income formerly earned by B, but would retain the \$1,000,000 formerly payable to the Government under the Recapture Clause, and another \$1,000,000 of its income would be freed from the restrictions imposed by the Recapture Clause upon the half of the excess earnings which a carrier was allowed to retain. Since railroad B could be purchased at a figure substantially lower than its rate-making value, because of its low earning power, there would be ample opportunity for terms of consolidation to be worked out to the mutual advan-

³² Craven, Leslie, Appendix III, in the report of the Federal Coordinator—*Regulation of Railroads*, 73d Cong., 2d sess., Senate Document No. 119 (1934).

tage of the stockholders of both A and B. Here then was the incentive that was to overcome the natural reluctance of strong roads to take over weak ones. But the Recapture Clause did not result in any noticeable scramble for weak lines. In part this was due to the ineffectiveness of the recapture provisions. In part it was due to the low earnings of the railways as a whole, so that few large lines had earnings subject to recapture. In part, also, it was due to the fact that the stronger lines in building up their systems in earlier years had absorbed many weak lines and branch lines at figures less than their rate-making values, and so, although strong financially, had moderate earnings when they were related to rate-making values. The Recapture Clause thus proved ineffective as a stimulus to bring about consolidation, and its repeal in 1933 removes the possibility of its operating in the future as such an incentive.

There is one method of exerting pressure for the consolidation of the weak and the strong that is possible under the Act of 1920 and under that Act as subsequently modified. In authorizing combinations of railroads which the carriers themselves request, the Commission has power to attach terms and conditions. It may attach to its authorization the condition that a carrier take steps toward the absorption of such other lines as the Commission thinks should be included in its system. In the Nickel Plate unification case the Commission commented upon the failure of the carriers to make provision for small and weak lines and said: "Every applicant should assume the burden of making reasonable provision in its plan for the possible incorporation of every connecting short line now in operation in the territory covered or to be covered by the proposed grouping or unification."³³ In 1931 the Commission attached such a condition to its authorization of the unification of a number of lines by the New York Central.³⁴ The power to attach such a condition has been upheld by the United States Supreme Court.³⁵

GOVERNMENT OWNERSHIP AND OPERATION

The weak-and-strong-road problem could be solved, of course, through government ownership and operation of the railroads, since the roads would be operated as a single system, and revenues could be used to support any part of the system which might show a loss if operated separately. The proposal to solve the weak-and-strong-road

³³ 105 I.C.C. 425, 449 (1926).

³⁴ *New York Central Unification*, 150 I.C.C. 278 (1929); 154 I.C.C. 489 (1929), but see 193 I.C.C. 607 (1933).

³⁵ *New York Central Securities Corp. v. United States*, 287 U.S. 12 (1932).

problem by this method, however, raises a host of questions concerning the desirability or undesirability of government ownership and operation of the railroads. This subject is discussed in another chapter.

POOLING

Another method of dealing with the weak-and-strong-road problem has been suggested at various times. This is through pooling a portion of the receipts of the railroads, and distributing the pooled receipts among the weaker lines according to their needs. This plan was first suggested in 1925 by Mark W. Potter, formerly a member of the Interstate Commerce Commission and then one of the receivers of the Chicago, Milwaukee & St. Paul Railway Co. He proposed a moderate increase in rates in Western Territory, say 5 percent, with the proceeds of the increase to be pooled and distributed among the lines that did not earn a certain return.³⁶

It is to be observed that this arrangement would not have equalized earnings, but would have prevented the stronger lines from receiving any benefits from the rate increase proposed, and would have marshaled the proceeds of the increase for the benefit of the weaker lines. The "Potter Plan" was not adopted. In fact, it received very little serious consideration. A somewhat similar plan appeared in connection with the Fifteen Per Cent Case of 1931, and was supported on brief by the National Industrial Traffic League.³⁷ The Commission denied the carriers' request for a 15 percent increase in rates but permitted specific increases on a great many commodities. In its original decision in the case, the Commission attached the condition that the proceeds of the increase, or "surcharge," should be pooled and distributed among the carriers which were not earning their fixed charges.³⁸ The railroads objected to the pooling arrangement. The Commission then modified its order and permitted the carriers to put into effect a modified plan which they had devised as a substitute.³⁹ The modified plan called for a segregation of the proceeds of the emergency increases, but provided that the funds so made available should not be given, but loaned, to the

³⁶ *Memorandum on the Subject of Pooling a Portion of Receipts of Rail Carriers, etc.* (1925). The plan is treated favorably in J. S. Eaton, "The St. Paul Plan of Rate Relief," 79 *Railway Age* 137 (1925), and critically by H. T. Newcomb, "The Potter Plan—A Critical Analysis," 27 *Analyst* 5 (1926).

³⁷ *Brief Before the I.C.C. in Ex Parte No. 103* (1931).

³⁸ 178 I.C.C. 539 (1931).

³⁹ 179 I.C.C. 215 (1931).

defaulting carriers. The Railroad Credit Corporation was created for the purpose of administering the plan. The loaning plan was discontinued on March 31, 1933.

There was some question concerning the power of the Commission to impose a pooling plan upon the carriers, and this was undoubtedly one reason for the modification of the original order. As a means of relief to the weak lines, however, the original plan of the Commission was superior to the loaning plan finally put into effect. The objection was raised to the Commission's plan that it would take earnings of the strong lines and would turn them over to the weak. This argument has no merit, for the plan was entirely in accord with the attitude taken by the United States Supreme Court in the New England Divisions case and in the Dayton-Goose Creek case. As Commissioner Eastman pointed out in his dissent from the action of the Commission which permitted the carriers to adopt the loaning plan, the New England Divisions case showed that the mere fact that a carrier collects certain revenue does not make it the owner, and that it may lawfully be required to turn over a portion of that revenue to needy lines.⁴⁰ The emergency charges authorized by the Commission in 1931 were properly considered by it as a special tax upon the users of the railroads to prevent default of interest payments. It was logical that the proceeds be distributed in such manner as to accomplish the desired result.

Although the attempt in 1931 to use the pooling device to aid the more needy lines failed, the issue was raised again in somewhat different form in 1937. The carriers had proposed certain increases in commodity rates as a means of increasing revenues. They had included an increase on coal since it is an important item of traffic. It appeared, however, that a large portion of the increased revenues from coal would accrue to three important railroads in the Pocahontas Region which were already earning over 9 percent on their investment in carrier property. But if coal rates were not increased on these three lines, they could not as a practical matter be increased on other lines. The Commission authorized temporary increases in the coal rates but suggested that a system of pooling and division of revenues was needed to prevent the revenues from accruing to railroads not in need of additional income.⁴¹ Presumably the continuance of the increased rates on coal was to be contingent

⁴⁰ 179 I.C.C. 215, 233 (1931).

⁴¹ *General Commodity Rate Increases, 1937*, 223 I.C.C. 657 (1937), pp. 740-745. See also Commissioner Archison's protest at this action, *ibid.*, pp. 758-760.

upon the establishment of a pooling arrangement. The carriers, however, refused to work out such an arrangement, and the Commission backed down from its stand by allowing the increased rates to continue in effect.⁴² Thus ended the Commission's second attempt to exert pressure upon carriers to pool the proceeds of an increase in rates.

A pooling device similar to that proposed by the Commission in the Fifteen Per Cent Case of 1931 might be of considerable aid in the solution of the weak-and-strong-road problem. Such a plan, however, needs positive legislative sanction to remove doubts of its legality. Senator Reed of Kansas introduced a bill to accomplish this purpose in 1942, and again in 1943.⁴³

CONCLUSION

The weak-and-strong-road problem is not adequately dealt with at the present time. The Recapture Clause proved impracticable in the form in which it was originally enacted, and it was subsequently repealed. The problem will not be solved by consolidation unless compulsion is exercised—a step which the public hesitates to take. Congress has not yet seen fit to authorize the Commission to deal with the problem through the pooling of the proceeds of rate increases. Division of joint rates to aid the weaker lines is not adequate to deal with the problem alone.

What will be the consequences of failure to deal with the problem in an effective manner? First, some rail mileage may be abandoned that might otherwise be saved. Probably this is not a large amount. We have already noted that consolidation or other devices should not be adopted to preserve railroad mileage that is not economically justified, but some mileage may be economically justified even though it cannot exist as independently operated mileage unless it is aided in some way.

Second, failure to deal with the weak-and-strong-road problem will bring about the financial reorganization of the weaker roads, with a consequent loss to investors, particularly to stockholders. These losses will occur notwithstanding the fact that the capitalization of such roads may be less than the legitimate investment in them.

Third, the more favorably situated railroads will receive earnings in excess of what would be considered "reasonable." For the most part these earnings will be due not to superior efficiency or managerial

⁴² 229 I.C.C. 435 (1938).

⁴³ For editorial support of the Reed bill see 69 *Traffic World* 76 and 96, and 71 *Traffic World* 117 and 177.

skill but simply to the fact that the rate level has to be higher than is necessary for the strong railroads, in order to preserve railroads having high unit costs.

SELECTED REFERENCES

The only book devoted to the weak-and-strong-road problem is J. M. Herring, *The Problem of Weak Railroads* (Philadelphia, University of Pennsylvania Press, 1929). There is a general discussion of the problem in S. T. Wu, *Railroad Valuation and Fair Return* (Philadelphia, University of Pennsylvania Press, 1930), ch. IX. Some fundamental economic considerations relating to the problem are set forth in H. G. Brown, "Railroad Valuation and Rate Regulation," 33 *Journal of Political Economy* 505 (1925), pp. 522-529.

Recapture of excess earnings and experience with the Recapture Clause is discussed in H. G. Moulton, *The American Transportation Problem* (Washington, Brookings Institution, 1933), ch. XVIII; in J. B. Eastman, Statement in *Hearings Before the House Committee on Interstate and Foreign Commerce, 72d Cong., 1st sess. on H.R. 7116 and 7117—Railroad Legislation* (1932), pp. 9-12; I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), pp. 221-255. Reading on this topic should include *Dayton-Goose Creek Ry. Co. v. United States*, 263 U.S. 456 (1924).

On the division of joint rates as a means of aiding weak lines see *New England Divisions Case*, 261 U.S. 184 (1923); and I. L. Sharfman, *op. cit.*, pp. 255-290.

Consolidation as a remedy is discussed in Bird M. Robinson, "The Relation of the Short Lines to Railroad Consolidation," 13 *Proceedings of the Academy of Political Science* 416 (1929); Geo. G. Reynolds, "Consolidation and Equalization," 13 *Proceedings of the Academy of Political Science* 425 (1929); L. H. Haney, "Advantages and Disadvantages of Railway Consolidation," 14 *American Economic Review* (supplement) 88 (1924), pp. 89-92; W. M. W. Splawn, *The Consolidation of Railroads* (New York, Macmillan, 1925), ch. VIII. A summary of views of the relation of consolidation to the weak-railroad problem is in W. C. Green, *Preliminary Report of Study of Railroad Consolidation*, 71st Cong., 3d sess. (1931), pp. 69-86. The most complete account of the efforts to bring about railroad consolidation under the Transportation Act of 1920 is W. N. Leonard, *Railroad Consolidation under the Transportation Act of 1920* (New York, Columbia University Press, 1946).

For the pooling plan see J. S. Eaton, "The St. Paul Plan of Rate Relief," 79 *Railway Age* 137 (1925); H. T. Newcomb, "The Potter Plan: A Critical Analysis," 27 *Annalist* 5 (1926); Mark W. Potter, *Memorandum on the Subject of Pooling a Portion of Receipts of Rail Carriers, etc.* (1925). See also J. B. Eastman's dissenting opinion, *Fifteen Per Cent Case*, 1931, 179 I.C.C. 215, 220-236 (1931); the decision of the Commission in *General Commodity Rate Increases*, 1937, 223 I.C.C. 657, 741-745 (1937); and Commissioner Eastman's separate expression in a supplemental report in the same case, 229 I.C.C. 435, 460-462 (1938), and his dissenting opinion in *Property Owners' Committee v. Chesapeake & Ohio Ry. Co.*, 237 I.C.C. 249, 580-585 (1940).

CHAPTER XVIII

REASONABLENESS OF RATES ON PARTICULAR COMMODITIES

RATE regulation involves more than adjusting rates so that carriers earn a fair return upon the fair value of their property. Rates must be prescribed on particular commodities and between particular points, and these rates must be "just and reasonable." This chapter is concerned with the factors which determine the reasonableness of rates on particular commodities. The following chapter will consider factors determining the reasonableness of rates between specific points. Both chapters will be concerned with reasonableness *per se* and not with discrimination or with undue preference and prejudice. In cases of the latter type the issue becomes one of the differences in rates. Reasonableness *per se* is concerned with the proper standard to apply on a commodity or on a particular haul, in and of itself. Rates and not differences in rates are involved. This is so notwithstanding the fact that reasonableness *per se* is often determined by means of rate comparisons. In this latter situation, however, the rates with which comparison is made are set up as a standard of reasonableness, and the comparison is not made for the purpose of determining whether one person or commodity has an advantage over another.

FAIR RETURN DOCTRINE NOT APPLICABLE

When rates on particular commodities are under consideration the net earnings of the carrier and their relation to property values are largely irrelevant. The rate on a particular commodity may be unreasonably high although the carrier is not earning a fair return. Likewise a rate may be unduly low, even though the carrier is earning more than a fair return.

This principle has been recognized by the United States Supreme Court. "Where the rates as a whole are under consideration, there is a possibility of deciding, with more or less certainty, whether the total earnings afford a reasonable return. But whether the carrier earned dividends or not sheds little light on the question as to whether the rate on a particular article is reasonable."¹ And in interpreting Section

¹ *Interstate Commerce Commission v. Union Pacific R. R. Co.*, 222 U.S. 541, 549 (1912).

15a of the Interstate Commerce Act the Court said: "The statute does not require that the net return from all the rates shall affect the reasonableness of a particular rate or a class of rates. In such an inquiry the Commission . . . need not consider the total return at all."² Although this principle is widely accepted, it sometimes happens that a certain commodity or group of commodities is such an important item of traffic to the carrier that its net earnings will be greatly affected by raising or lowering the rates thereon. Under such circumstances, the earnings of the carrier do have a bearing on the reasonableness of the rate on the commodity or commodities in question.

OUT-OF-POCKET COSTS

In our discussion of railway rate theory in an earlier chapter,³ it was pointed out that the direct or prime costs, sometimes called "out-of-pocket costs," fix a minimum below which the rates on particular commodities and on particular hauls should not fall. The principle has been recognized by regulatory bodies and has found expression in their decisions. The Interstate Commerce Commission has said: ". . . this Commission regards as unreasonable a rate which is so low as to be noncompensatory or which may or does transfer a portion of the cost of transportation to other traffic,"⁴ and "it would be unlawful to charge a rate so low as to be noncompensatory or impose a burden upon other traffic."⁵

Although it is well settled that rates should cover out-of-pocket costs, it does not follow that all rates above out-of-pocket costs are reasonable. Neither should it be implied that the state can require a railroad to charge a rate that only covers out-of-pocket expense.

THE RULE OF NORTHERN PACIFIC RAILWAY V. NORTH DAKOTA

Rates prescribed by the state may not be less than the full cost of the service. Cost includes a share of all operating expenses including those which do not vary with the volume of traffic. This principle was established by the United States Supreme Court in *Northern Pacific Railway Co. v. North Dakota* in 1915.⁶ The State of North Dakota had

² *Dayton-Goose Creek Ry. Co. v. United States*, 263 U.S. 456, 480 (1924), and also p. 483.

³ Chapter VII.

⁴ *Excelsior from St. Paul, Minn.*, 36 I.C.C. 349, 365 (1915).

⁵ *Lumber Rates from the Southwest to Points North*, 29 I.C.C. 1, 15 (1914).

⁶ 236 U.S. 585.

prescribed rates on lignite coal within the State which did not contribute a ratable share of all operating expenses. These rates were set aside by the Supreme Court as confiscatory and in violation of the Fourteenth Amendment of the Constitution. The State argued that as long as the earnings from the traffic as a whole were sufficient to give the carrier a fair return rates on particular commodities might be below the cost of the service. In theory, as we have seen, it is in the interest of the carrier to charge rates that contribute little more than out-of-pocket cost providing the traffic will not move at higher rates. The low rates make a contribution to the railroad's overhead expenses that would not be obtained at higher rates. But although the railroads may and do make rates on this basis, public authority apparently cannot require this to be done. On this point the language of the Court in the Northern Pacific case is clear: "... we entertain no doubt that, in determining the cost of the transportation of a particular commodity, all the outlays which pertain to it must be considered. We find no basis for distinguishing in this respect between so-called 'out-of-pocket costs,' or 'actual' expenses, and other outlays which are none the less actually made because they are applicable to all traffic, instead of being exclusively incurred in the traffic in question. Illustrations are found in outlays for maintenance of way and structures, general expenses and taxes. It is not a sufficient reason for excluding such, or other, expenses to say that they would still have been incurred had the particular commodity not been transported. That commodity has been transported; the common carrier is under a duty to carry, and the expenses of its business at a particular time are attributable to what it does carry."⁷ The reason for this rule is the belief that the carrying of some traffic at less than the full cost of the service must throw a burden on other traffic. Thus the Court said: "The state cannot estimate the cost of carrying coal by throwing the expense incident to the maintenance of the roadbed, and the general expenses, upon the carriage of wheat; or the cost of carrying wheat by throwing the burden of the upkeep of the property upon coal and other commodities. . . . Certainly, it could not be said that the carrier may be required to charge excessive rates to some in order that others might be served at a rate unreasonably low. That would be but arbitrary action."⁸ The reasoning of the Court is not wholly sound. A low rate on one commodity does not burden other traffic if the rate covers the

⁷ *Ibid.*, p. 597.

⁸ *Ibid.*, pp. 596-597, 598.

out-of-pocket cost and makes some contribution to overhead expenses. Be that as it may, the Court requires that "outlays that exclusively pertain to a given class of traffic must be assigned to that class, and the other expenses must be fairly apportioned;" and "when conclusions are based on cost, the entire cost must be taken into account."⁹ The principle of the Northern Pacific case was followed in another case, decided the same day,¹⁰ and has been reaffirmed and followed in later cases.¹¹

At first glance the decision of the Court in the Northern Pacific case may seem to prevent all differentiation in rates which is not based on differences in cost. But this is not so. The Court was not referring to the overhead expenses represented by interest on bonds, or a return upon capital in any form—items which in our discussion of rate theory were found to constitute a large part of the overhead or constant expenses. The Court was referring to those operating expenses which cannot be assigned directly to specific units of traffic, such as maintenance of way and general expenses. The Court does not require an apportionment of the return on capital. ". . . the legislature . . . is not bound to fix uniform rates for all commodities or to secure the same percentage of profit on every sort of business."¹² Elsewhere the Court has said: ". . . the carrier has no constitutional right to the same rate or percentage of return on all its business . . ."¹³ Some differentiation in rates on the basis of the value of the service is therefore permissible even in state-made rates.

Although the reasoning of the Court in the Northern Pacific case is not wholly valid, and may render rates impregnable against attack which are economically unsound, the rule is not to be wholly condemned. It prevents regulatory authorities from requiring rates which do shift the burden on other traffic. The weakness of the rule lies in the fact that it fails to recognize that for purposes of making rates the apportionment of overhead costs may properly be made on the basis of demand factors. The assignment of indirect costs in proportion to direct costs, or on the basis of some unit of traffic such as tons, ton-miles, cars, or car-miles, is arbitrary. It is arbitrary in that rates based on such allocations

⁹ *Ibid.*, p. 597.

¹⁰ *Norfolk & Western Ry. v. Conley*, 236 U.S. 605 (1915).

¹¹ *Vandalia Railroad Co. v. Schnull*, 255 U.S. 113 (1921); *Banton v. Belt Line R. R. Co.*, 268 U.S. 413 (1925).

¹² 236 U.S. 595, 598-599.

¹³ *Banton v. Belt Line R. R. Co.*, 268 U.S. 413, 421 (1925).

may not move traffic that would move on rates that covered direct costs and made some contribution to indirect costs.

Prior to the Northern Pacific decision it had been generally believed that public authority could require low rates on particular commodities provided the carrier was permitted to earn a fair return from its traffic as a whole. This view was supported by dicta in the decisions of the United States Supreme Court. In one case the Court said: ". . . we do not think it beyond the power of the state commission to reduce the freight upon a particular article, provided the companies are able to earn a fair profit upon their entire business."¹⁴ In the same case the Court, in referring to rates on coal which were alleged to be confiscatory, said: ". . . it may well be that the existing rates upon other merchandise, which are not disturbed by the Commission, may be sufficient to earn a large profit to the company, though it may earn little or nothing upon coal in carload lots."¹⁵ State courts and lower Federal courts had often acted on this principle.¹⁶ In the Northern Pacific case the United States Supreme Court said that its position in the earlier cases had been misinterpreted, and it announced the rule we have described. This rule necessarily binds the Interstate Commerce Commission and State commissions.¹⁷

Carriers very frequently maintain lower rates than could be required of them under the Northern Pacific rule. This often occurs when low rates are necessary to meet competition or to make traffic move. The right of the carriers to do this is recognized by regulatory authorities.¹⁸

THE COMPARATIVE STANDARD OF REASONABLENESS

The Northern Pacific case sets up an absolute standard of reasonableness. But the principle of that case is rarely invoked. Hundreds of rate cases are decided each year without any attempt to find the cost of the service in the absolute sense of the word. The usual method of

¹⁴ *Minneapolis & St. Louis R. R. Co. v. Minnesota*, 186 U.S. 257, 267 (1912).

¹⁵ *Ibid.*, see also *Willcox v. Consolidated Gas Co.*, 212 U.S. 19, 54 (1900).

¹⁶ See particularly *Atchison, Topeka & Santa Fe Ry. Co. v. United States*, 203 Fed. 56, 59 (1913). In *re Arkansas Rate Cases*, 187 Fed. 290, 307 (1911).

¹⁷ For comments on the case, see *American National Live Stock Association v. Atchison, Topeka & Santa Fe Ry. Co.*, 122 I.C.C. 609, 617 (1927), *Grain & Grain Products*, 122 I.C.C. 235, 264 (1927); Hale, Robert L., "Commissions, Rates, and Policies," 53 *Harvard Law Review* 1103, 1127-1128 (1940); Edwards, Ford K., *Motor Carrier Rates in New England*, Exhibit in Ex Parte MC-22 (Bureau of Transport Economics & Statistics, 1944).

¹⁸ E.g., *Handling Charges on Cement, Fertilizers, and Salt*, 93 I.C.C. 640 (1924); *Bouleau v. Pittsburgh & Lake Erie R. R. Co.*, 24 I.C.C. 129 (1912); *Crude Oil from Louisiana*, 74 I.C.C. 623 (1922).

determining the reasonableness of rates on a particular commodity is to compare the rate with the rates on commodities which have similar transportation characteristics. The rates used for purposes of comparison are set up as a standard of reasonableness, and other rates are made to conform thereto unless some difference in the commodities is shown which justifies differences in rates.

ANALOGOUS ARTICLES

The basic principle in the comparative method is commonly stated thus: Analogous articles should take the same rates. The term "analogous articles" refers to articles that are alike from a transportation standpoint, that is, alike in the matter of cost of transportation and in value. If the costs of transporting two articles differ, or if differences in value are shown, the articles are not strictly analogous and different rates are justified.

Rate cases can be found by the thousands which illustrate the general rule. The Interstate Commerce Commission has held, for instance, that canned evaporated milk should take the same rates as other canned goods,¹⁹ that wooden beer cases should take the same rates as wooden boxes,²⁰ benzol as gasoline.²¹ Similarly, the Commission has required that celery should take the same rates as egg plant,²² motorcycles as bicycles,²³ Pluto water as ginger ale,²⁴ camel's hair as wool,²⁵ broken glass as junk,²⁶ building brick as paving brick,²⁷ chopped alfalfa as baled hay,²⁸ lawn mowers as agricultural implements,²⁹ camp outfits as contractors' outfits.³⁰

RELATIVE COST OF SERVICE

It will be noted that two commodities are not analogous if there are differences in the cost of transporting them. Differences in rates may then be justified. Sometimes it is possible to measure these differ-

¹⁹ 112 I.C.C. 155.

²⁰ 25 I.C.C. 249.

²¹ 78 I.C.C. 353.

²² 5 I.C.C. 663.

²³ 26 I.C.C. 127.

²⁴ 60 I.C.C. 615.

²⁵ 78 I.C.C. 178.

²⁶ 78 I.C.C. 702.

²⁷ 87 I.C.C. 105.

²⁸ 87 I.C.C. 154.

²⁹ 109 I.C.C. 465.

³⁰ 112 I.C.C. 186.

ences with some degree of accuracy; sometimes it is not possible to do so. It should be carefully noted that cost of service in the absolute sense is not obtained in such cases. Comparisons of this sort reveal differences in cost, not costs themselves. Relative cost is a more important factor in rate cases than absolute cost.

Since the reasonableness or unreasonableness of rates frequently turns on relative cost of service, it is important to consider the principal factors which cause differences in cost, and which therefore justify higher or lower rates on some articles than on others.

LOADING CHARACTERISTICS

Freight rates are usually stated in terms of cents per hundred pounds or per ton. At uniform rates per ton, or other unit of weight, a carload of a light bulky article would yield the carrier much less revenue than a carload of a heavier commodity. Many elements of transportation cost, however, vary with the number of cars handled rather than with the number of tons handled. In order to obtain reasonable revenues per car the rates on light and bulky articles must be relatively high, but on heavy-loading articles they may be relatively low. The loading characteristics of an article are therefore important in determining the reasonableness of rates.

Whether an article loads heavily or lightly depends in large measure upon its weight-density. This is commonly expressed as weight per cubic foot. In the case of light and bulky articles a difference of a few pounds per cubic foot becomes a matter of first importance.³¹ Differences in rates on various kinds of lumber and lumber products are determined partly by weight-density.³² Greater weight-density explains the common practice of having more favorable rates and ratings on articles "nested" than "not nested," and on articles "knocked down" than "set up." Sometimes the carriers maintain different ratings on the same article dependent upon the thickness of the material from which it is made. The Consolidated Freight Classification shows that aluminum shipping drums made of material of a certain gauge are rated first class, but if made of a thicker material they are rated second class. The influence of weight-density is seen also in the almost universal practice of making higher rates on commodities having low minimum carload

³¹ See *Better Bedding Alliance v. Atchison, Topeka & Santa Fe Ry. Co.*, 148 I.C.C. 66 (1928).

³² *Rates on Lumber and Lumber Products*, 52 I.C.C. 598 (1919).

weights, and lower rates on articles with high minima. On furniture, the principle of varying rates with weight-density has led to different ratings—within a range of values from 15 to 25 cents per pound—according to the weight per cubic foot of the particular article.³³

A low weight-density is not the only explanation of why some articles load lightly. Ability to load the article compactly must also be considered. Articles of odd shapes or large dimensions may not load to advantage. Sometimes, furthermore, carloading is restricted by the impossibility of completely filling a car without causing damage to the contents. Melons can be loaded only a few layers deep without crushing those on the bottom. Crates of fresh fruit shipped in refrigerator cars cannot always be loaded to the top of the car since the warm air in the car rises to the top and causes the top layers of fruit to spoil. Sometimes the loading of an article is restricted by commercial conditions rather than by physical limitations. If an article is bought and sold in quantities somewhat less than can be loaded in a car it may be necessary to provide a low minimum carload weight.

There are certain recognized limitations to the practice of adjusting rates to the loading characteristics of the article. In the first place, too minute distinctions cannot be made, at least in case of classified freight. To do so would destroy the advantages of classification by making the number of classes too great.³⁴ In the second place, it is not practicable to provide for differing weight-densities of the same articles unless the differences are considerable. To make such distinctions often benefits a few shippers and hence tends to discriminate against others. The Commission once refused to require a lower rate on a particular kind of gas heater which loaded more heavily than ordinary gas stoves.³⁵ There are some cases, however, in which different weight-densities of the same kind or class of articles have been held to require different rates,³⁶ but this is not the usual practice. In one case the Commission refused to lower the rates on cotton compressed to a density of 47 pounds per

³³ *Rate Structure Investigation, Part 5—Furniture*, 177 I.C.C. 5, 109-110 (1931). On furniture weighing 3 pounds per cubic foot and under, the rating is 3 t 1; over 3 pounds and including 3.75, the rating is 2½ t 1. The ratings decrease with increasing weight-density ending in a second-class rating on furniture weighing over 12.5 pounds per cubic foot.

³⁴ See *Casket Manufacturers' Assoc. of America v. Baltimore & Ohio R. R. Co.*, 49 I.C.C. 327 (1918).

³⁵ *General Gas Light Co. v. Alabama Great Southern R. R. Co.*, 102 I.C.C. 181 (1925). See also *Rates on Excelsior & Flax Tow from St. Paul, Minn.*, 29 I.C.C. 640 (1914).

³⁶ *Edlund Broom Corporation v. Boston & Maine R. R. Co.*, 104 I.C.C. 692 (1925).

cubic foot as compared with ordinary cotton bales having a density of 25 pounds per cubic foot. The high-compressed bales would load 50,000 pounds to the car whereas ordinary bales could be loaded to only 25,000 pounds. The Commission feared that the advantage of the lower rate would accrue only to those who held patents in the machinery for making the high-density bale, and that it might lead to a monopoly in the purchasing of cotton.³⁷ A similar case before the Texas commission was decided the same way, and the decision was approved by the Texas Supreme Court.³⁸ The soundness of disregarding such large differences in loading characteristics is highly questionable.³⁹

SUSCEPTIBILITY TO LOSS OR DAMAGE

A second cost factor to be considered in determining the reasonableness of rates on particular commodities is the risk of loss and damage. Ocean shipments of freight are usually insured against loss and damage and a regular insurance premium is paid. A railroad company, however, is liable for the safe transportation of the goods it carries. The railroad is, in a sense, the insurer of the goods.⁴⁰ No separate insurance premium is charged to cover the risk. For this reason the risk of loss or damage is a cost factor which must be considered in making railroad rates.

Commodities differ greatly in the matter of susceptibility to loss or damage. Some, like sand, gravel, brick, and iron and steel articles, are not likely to be damaged. Fragile articles and perishable products, such as fresh fruit and vegetables, are very susceptible to injury. Susceptibility to loss and damage may arise, however, from causes other than fragility or perishability. Grain shipped in bulk leaks from the cars and is lost. Many commodities are injured by freezing or by abnormally high temperatures. Alcoholic beverages are frequently stolen, and cigarettes are peculiarly susceptible to pilfering. Explosives are easily destroyed and may cause loss and damage to other freight and to the railroad equipment. In a case dealing with rates on dynamite it was pointed out that one-half of the transportation charge represented com-

³⁷ *Planters Compress Co. v. Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.*, 11 I.C.C. 382 (1905).

³⁸ *Railroad Commission of Texas v. Weld & Neville*, 96 Tex. 394 (1903).

³⁹ See Dissenting Opinion of Commissioner Prouty in the *Planters Compress* case, 11 I.C.C. 382, 410-421.

⁴⁰ Railroads are liable for loss or damage even though there is no negligence on their part. They are not liable, however, in the absence of negligence, for loss or damage due to an "act of God," an act of the public enemy, an act or default of the shipper, an act of public authority, or the inherent nature or qualities of the goods shipped.

compensation for risk.⁴¹ Comparisons of the risk element in the transportation of different articles can be reduced to a statistical basis. Figures showing loss and damage claims on particular commodities in relation to the total freight revenues received from their transportation are often presented in rate cases.

Differences in liability to loss and damage may become the controlling or decisive element in a particular case. In one case the Commission required a lower rate on a new kind of explosive, called "masurite," than was charged on dynamite, because the former was so difficult to explode that it was as safe to transport "as sugar or soap" except in the event that some other explosive in close proximity also exploded.⁴²

In some countries different rates are provided on articles according to whether they are shipped at carrier's risk (C.R.) or at owner's risk (O.R.). This is the practice in England and it was formerly so in the United States. At the present time the railroads in the United States are prohibited (with certain exceptions) from limiting their liability by contract or stipulation in tariffs and classifications. For this reason there are no owner's-risk rates found in the United States. In countries which permit owner's-risk rates the difference between the two classes of rates should compensate for the difference in risk. In England this principle is written into the law by the Railways Act of 1921.

The methods by which goods are packed for shipment often affect their susceptibility to loss and damage. Thus canned meats and other foods have usually been charged higher rates when in glass than when in tin containers, although the greater susceptibility of the glass containers to breakage has been hotly disputed.⁴³ Articles shipped in crates are often charged higher rates than in boxes because they are less adequately protected. Higher rates on tea in bags than in boxes or chests has been found reasonable because tea in bags readily absorbs the odors of other commodities which may previously have been transported in the same car.⁴⁴

Rule 5 of the Consolidated Freight Classification provides a scheme

⁴¹ *Dupont de Nemours Co. v. Central Railroad of New Jersey*, 25 I.C.C. 19 (1912).

⁴² *Masurite Explosive Co. v. Pittsburgh & Lake Erie R. R. Co.*, 13 I.C.C. 405 (1908).

⁴³ See *Indian Packing Corporation v. Director General*, 64 I.C.C. 205 (1921), and 93 I.C.C. 400 (1924); also *Classification Ratings on Food Products*, 185 I.C.C. 138 (1932), 195 I.C.C. 683 (1933).

⁴⁴ *Glosset & Derers v. Northern Pacific Ry. Co.*, 45 I.C.C. 99 (1917).

for the establishment of ratings on articles shipped in containers other than the containers listed with the description of the article in the body of the classification. According to this rule, for instance, articles in crates are charged 20 percent more than when shipped in boxes, L.C.L., and 10 percent more when in carloads. Rule 5 has its justification in the greater risk incurred if the articles are shipped in one form than in another. The Commission, however, does not hesitate to find charges unreasonable if the application of this rule results in the imposition of higher charges on certain shipments than are justified by differences in risk. Thus the imposition of a rating on steel roller chains in bags three classes higher than when in barrels or boxes was found unreasonable because the article was not easily damaged, even if in bags.⁴⁵ Similarly, the Commission found unreasonable the imposition of a rating on agate pebbles in bags which was two classes higher than on the same commodity in boxes.⁴⁶ Not only are the carriers entitled to higher charges when goods are shipped in forms more likely to result in loss and damage, but they may provide in detail the specifications for the construction of crates, barrels, or other containers used for shipping goods.⁴⁷ Under Rule 5 of the classification the carriers are supposed to refuse shipments not properly prepared for shipment. If the goods are accepted when the containers do not conform in all respects to the requirements specified in the descriptions or in the rules, the rates are 20 percent higher, L.C.L., and 10 percent higher, C.L. The Interstate Commerce Commission has held that the carriers have a right to insist upon proper packing, but that they have no right to impose higher rates on less substantially packed articles than is warranted by the additional risk assumed.⁴⁸

AMOUNT OF THE CARRIER'S LIABILITY

A third factor in determining the relative cost of service is the amount of the liability assumed by the carrier. If the carrier is liable for the full value of the goods it carries, the value of the commodity measures the amount of the carrier's liability. If the carrier exempts itself from liability beyond a certain stated value, this stated or released value measures the amount for which the railroad is liable.

Section 20 of the Interstate Commerce Act makes the railroads liable

⁴⁵ *Link-Belt Co. v. Pittsburgh, Cincinnati, Chicago & St. Louis R. R. Co.*, 64 I.C.C. 195 (1921).

⁴⁶ *Agate Products Co. v. Director General*, 66 I.C.C. 674 (1922).

⁴⁷ See Rules 40 and 41 of the Consolidated Freight Classification.

⁴⁸ *Classification of Canned Goods*, 98 I.C.C. 166, 177.

for the full value of the commodities which they transport, hence the value of the commodity is a factor affecting the cost of service. This should not be confused with the principle of varying rates according to value on the theory that the more valuable goods will stand higher rates. So far as cost of service is concerned, the value of the commodity affects rates only to the extent that it measures the carrier's liability. On this basis, only slightly higher rates are justified on valuable articles than on cheaper ones.

It was common in the past for the carriers to limit their liability by quoting "released rates." These are rates granted on certain articles if the shipper will release the carrier from liability beyond a certain agreed or stated value. Under this system the shipper has his choice of paying a comparatively high rate and having his shipment fully covered by the railroad's liability, or of paying a lower rate but with the carrier's liability limited to a specified amount. Released rates were common on articles varying greatly in value, or on commodities the value of which was difficult to determine.

Released rates are made unlawful by Section 20, par. (11), of the Interstate Commerce Act. This section makes railroads liable for the full value of commodities carried "notwithstanding any limitation of liability or limitation of the amount of recovery or representation or agreement as to value in any such receipt, or bill of lading, or in any contract, rule, regulation, or in any tariff filed with the Interstate Commerce Commission." Certain exceptions are permitted: first, baggage carried on trains carrying passengers; second, property other than ordinary livestock, upon which the Interstate Commerce Commission has specially authorized released rates. The situation may therefore be summarized as follows:

Articles	Status of Released Rates
Baggage	Lawful
Ordinary livestock.	Unlawful
Other-than-ordinary livestock ⁴⁹	} Unlawful unless specifically authorized by the I.C.C.
All other commodities.	

Two circumstances must exist concurrently before the Interstate Commerce Commission will authorize released rates: (1) the commodity must have a wide range of values; and (2) must have a high susceptibility to loss and damage.⁵⁰ Neither circumstance alone is suf-

⁴⁹ Other-than-ordinary livestock means livestock chiefly valuable for show, breeding, or racing purposes.

⁵⁰ See *Released Rates on Stone in the Southeast*, 93 I.C.C. 90 (1924).

ficient to warrant released rates—not a wide range of values by itself, because the loss and damage claims may be negligible; not unusual susceptibility to loss and damage alone, because if the risk is known the rate can and should be made high enough to cover it. When the two conditions exist together, however, the risk and uncertainty justify the limitation of liability. When released rates are authorized the difference in rates should represent the difference in cost due to lesser risk.⁵¹

VOLUME OF MOVEMENT

The cost of transporting a commodity is affected to some extent by the volume in which it moves. If the volume of movement is large a carrier is in position to organize better its operations and methods of handling the commodity and so to reduce the cost of carrying it. We are here referring to costs directly assignable to the commodity in question. The principle should not be confused with the principle that unit costs of transportation decrease as the volume of all traffic increases as a result of spreading the constant or indirect costs over a larger volume of traffic. Sometimes, if the volume of traffic of a single commodity, say coal or coke, is so large as to constitute a substantial portion of the whole traffic, a low rate may be justified because of the relation of volume to overhead.⁵² It is the relation between the volume of movement of a commodity and direct costs, however, not between total volume and the distribution of general overhead costs, that we are interested in at this point.

Although the volume of movement of an article may affect the direct costs of handling it, this is not true if the larger volume of movement does not permit more economical handling. Thus two articles generally shipped as L.C.L. freight may differ considerably in the quantities offered for shipment without affecting the relative cost of transporting them. "In such a case mere quantity, not measured by a recognized unit of quantity adapted to carriage . . . cannot be allowed to affect rates in the transportation of property."⁵³ In order for a large volume of movement to justify lower rates on one article than on another, the larger volume should actually lower direct costs. The most striking examples of this principle occur where the volume of traffic in a single commodity permits its movement in solid trainloads.

⁵¹ *Ibid.*

⁵² See for instance, *Tift v. Southern Ry. Co.*, 10 I.C.C. 548, 583 (1905), and *Louisville & Nashville Railroad Coal & Coke Rates*, 26 I.C.C. 20, 31 (1913).

⁵³ *Harvard Co. v. The Pennsylvania Co.*, 4 I.C.C. 212, 224 (1890).

It is probably true that the Commission has often attached greater significance to volume of movement than is justified by its relation to cost of service, sometimes giving it weight when cost of service was not affected. Professor Sharfman has justly criticized the Commission on this score.⁵⁴

REGULARITY OF MOVEMENT

Regularity of movement is another factor entering into the measurement of relative cost of service. If traffic moves regularly, it can be transported with greater economy. More economical train schedules can be worked out, and empty cars can be supplied with a minimum of expense. Irregularity of movement has the opposite effect. This is often true when there is a distinctly seasonal movement which taxes the carrier's facilities at certain times and results in idle equipment and facilities at others.

TYPE OF EQUIPMENT REQUIRED

The type of equipment required for an article affects its relative cost of service. Articles that require refrigerator cars are more expensive to transport than articles that can be carried in ordinary box cars. Other commodities can be carried in open-top cars or on flat cars. Some articles require insulated cars, and others require lined equipment. Then, too, the dead weight transported is greater when commodities must be transported in the heavier types of equipment.

SPECIAL SERVICES

Some commodities transported by the railroads require special services of one type or another. Refrigeration or protection against cold is often necessary. Refrigerator cars may have to be precooled before being loaded with shipments of fresh fruit or vegetables. Caretakers for livestock may be granted free passage. Special sidings or terminal facilities may be provided for the loading or unloading of certain kinds of fruits and vegetables or other commodities. Perishable commodities may be given expedited service. For some of these services special charges may be made, but if compensation is not provided by extra charges the regular freight rate must be high enough to remunerate the carrier for the costs incurred.

DEMAND FACTORS

The factors entering into the reasonableness of rates that we have just described concern the relative costs of transporting different articles.

⁵⁴ *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), pp. 514-518.

We must now turn to a consideration of factors affecting the demand for transportation service, that is, matters that relate to what the traffic will bear.

EFFECT OF RATES ON THE MOVEMENT OF TRAFFIC

The Interstate Commerce Act requires the Commission to consider the effect of rates on the movement of traffic in determining just and reasonable rates. We have already referred to this principle as applied in cases relating to the general level of rates.⁵⁵ It applies also in cases involving rates on particular commodities. To consider the effect of rates on the movement of traffic is but to recognize that rates must be limited by the value of the service, or what the traffic will bear, if traffic is to move.⁵⁶ The Commission has often said that "the rate level necessary to move a commodity is an element to be weighed in determining a reasonable charge."⁵⁷ The Commission, for instance, has recognized that rates on scrap material,⁵⁸ and on hay,⁵⁹ had to be low if the traffic was to move, and under certain circumstances it has recognized this principle in fixing rates on fresh fruits and vegetables.⁶⁰

Consideration of the effect of rates on the movement of traffic should not lead to rates that are below the direct costs of transportation. We have seen, however, that it may be sound to make rates less than the full allocated cost of service if such rates are necessary to move the traffic, and if they cover something more than the direct costs of providing the service.⁶¹

VALUE OF THE COMMODITY

It has been customary from the earliest days of railway development to charge comparatively high rates on valuable articles and lower rates on cheaper articles. The relationship between value and rates is based upon a relationship between the value of the article and the value of the service of transporting that article. All too frequently in the literature of railway rates the term "value of service" is used

⁵⁵ Pp. 355-356, *supra*.

⁵⁶ Pp. 138-139, *supra*.

⁵⁷ *Half Stage Refrigeration Service*, 256 I.C.C. 213, 221 (1943); *Penick & Ford v. Director General*, 80 I.C.C. 152, 156 (1923); *Chicago Heights Mfrs. Assn. v. Pennsylvania R. R. Co.*, 92 I.C.C. 194, 198 (1924).

⁵⁸ *Waste Material Dealers Assoc. v. Chicago, Rock Island & Pacific Ry. Co.*, 226 I.C.C. 683, 691 (1938).

⁵⁹ *Hay Rates within Western District*, 195 I.C.C. 461, 477 (1933).

⁶⁰ *Fresh Green Vegetables from Idaho & Oregon*, 253 I.C.C. 143 (1942).

⁶¹ Pp. 154-155, *supra*.

synonymously with value of the commodity, but the two things are different. It is generally true, as we have elsewhere pointed out, that valuable commodities will stand higher rates than less valuable ones, but the relationship is not always true. Sometimes the valuable commodities will not stand high rates, but the usual relationship clearly warrants the prominence generally given to value comparisons in rate cases. There is no need of giving citations to cases in which the Commission has acknowledged value of the article as a factor to be considered in determining the reasonableness of rates. Their number is legion. In fact there is scarcely a case involving the rates on particular articles which does not make use of value comparisons. In many cases it becomes the controlling consideration.

The value of the commodity as an indication of ability to pay should not be confused with the value of the commodity as a measure of the liability assumed by the carrier. It has occasionally been argued before the Interstate Commerce Commission that the value of an article is not an element in rate making except to the extent that it measures liability for loss and damage. The Commission maintains, however, that "where two commodities are similar except for a difference in value the difference in rates may and should be more than an amount just sufficient to provide insurance against loss or damage in transit."⁶²

In determining the value of a commodity for the purpose of rate making, commercial or market value is ordinarily used as distinguished from so-called "intrinsic value," or the cost of producing the article.⁶³ This is sound, for the price at which an article will sell indicates its ability to bear a transportation charge better than does its cost of production. Sometimes market value is not available, and cost of production, or cost of production plus a reasonable margin of profit, may be used to indicate value.⁶⁴ Cases arise, however, in which this method of judging value is not available.⁶⁵

If the articles are distinguished for purposes of rate making according to differences in value, why should a distinction not be made be-

⁶² *National Association of Employing Lithographers v. Atchison, Topeka & Santa Fe Ry. Co.*, 136 I.C.C. 201, 203-204 (1927).

⁶³ *Warner v. New York Central & Hudson River R. R. Co.*, 4 I.C.C. 32 (1890).

⁶⁴ *Burroughs Adding Machine Co. v. Michigan Central R. R. Co.*, 120 I.C.C. 19 (1926); *Heywood-Wakefield Co. v. Ann Arbor R. R. Co.*, 161 I.C.C. 527 (1930).

⁶⁵ For two rather peculiar cases in this respect, see *Montgomery Ward & Co. v. Abilene & Southern Ry. Co.*, 147 I.C.C. 415 (1928); and *Liberty Weekly, Inc. v. Atchison, Topeka & Santa Fe Ry. Co.*, 168 I.C.C. 229 (1930).

tween the different grades or values of the same article? This is, in fact, sometimes done. Such rates are called "actual-value" rates. When actual-value rates are put into effect, it becomes necessary for the shipper to declare the value of the article before the proper rate or rating can be determined. Actual-value rates should be distinguished from the released rates referred to earlier in the chapter. With actual-value rates the value becomes a part of the description of the property, and misrepresentation of the value is a form of false billing which defrauds the carrier and is therefore subject to a heavy penalty. With released rates, on the other hand, the declared or agreed value is simply intended to limit the carrier's liability, and there may be no pretense that the declared value is the real value of the article. An actual-value rate does not carry with it any limitation of liability, although it may have that effect since a shipper would hardly dare to claim a value greater than that declared. To do so would be an admission of misrepresentation in order to obtain a rate lower than the legal rate.

Actual-value rates are commonly found on articles having a wide range in values. The theory is that the articles in the different value groups are so different as to constitute, in effect, different commodities. At one time raw silk, L.C.L., was rated first class in Official Classification when the value was not in excess of \$1.00 per pound. The rating was $1\frac{1}{2}$ times 1 when of a greater value.⁶⁶ The Consolidated Freight Classification provides actual-value rates on livestock chiefly valuable for racing, breeding, or show purposes. A first-class rating is provided on such livestock, L.C.L., when values are not in excess of certain standard or basic values set up in the Classification. The standard value of a horse, for instance, is \$150, and of a cow \$50. When values are in excess of these figures the rate is increased 2 percent for each 50 percent of the basic value, or fraction thereof, by which the value exceeds the standard.

There is one serious difficulty with actual-value rates. The freight agent is not an expert in determining the values and grades of various articles. The carrier must therefore rely upon the statement of value declared by the shipper. This opens the way for misrepresentation and fraud. Where actual-value rates are quoted, the traffic is apt to move at the lower rates. For this reason the Commission has hesitated to require the carriers to vary rates according to the different grades of

⁶⁶ *Silk Association of America v. Pennsylvania R. R. Co.*, 44 I.C.C. 578 (1917).

particular articles.⁶⁷ But an early decision of the Commission which required a second-class rating on window shades regardless of differences in value⁶⁸ was set aside by a court on the grounds that it was not reasonable to ignore the differences in value.⁶⁹ The Commission thereupon restricted its order to window shades having a value not in excess of \$6.00 per dozen.⁷⁰ This left the carriers free to charge higher rates on the more valuable grades.

The practice of making rates higher on valuable articles than on cheaper articles may be easily abused. It may lead to the exaction of unnecessarily high rates simply because some articles will stand such rates. When low rates are granted on low-grade commodities on the theory that the low rate is necessary to move the traffic but will yield something above the direct costs of transportation, the rates on such commodities will be less than the fully allocated cost of transporting them, and rates on the high-grade articles will exceed their fully allocated costs. At the same time, however, the rates on the valuable articles should be lower, and not higher, than they would be if the low-grade articles were not carried. In other words, the carrying of the low-grade articles at low rates should defray part of the constant or indirect costs that would otherwise be borne by the high-grade traffic alone.⁷¹

The rise of motor transportation in recent years has forced the railroads to attach less weight to the value of commodities than formerly in fixing rates, and has brought down the rates on articles that had customarily been charged high rates because of their high value. This was pointed out by the Interstate Commerce Commission in 1945 in the Class Rate Investigation. "Development of competitive transportation agencies with flexible service, and a disregard of the element of value by the competitive agencies in the determination of their charges, have reacted upon the policies of the classification committees with the result that generally weight density is now the dominant consideration in determining classification ratings. This does not mean that value and other principles of classification are completely eliminated from con-

⁶⁷ See *Union Pacific Tea Co. v. Pennsylvania R. R. Co.*, 14 I.C.C. 545 (1908); *McCrory Stores Corp. v. Director General*, 55 I.C.C. 423 (1919); *Union Made Garment Manufacturers Assoc. v. Chicago & North Western Ry. Co.*, 16 I.C.C. 405 (1909); *Silver Plated Iron or Steel Bearings*, 259 I.C.C. 360 (1945).

⁶⁸ *Page v. Delaware, Lackawanna & Western R. R. Co.*, 6 I.C.C. 148 (1894).

⁶⁹ *Interstate Commerce Commission v. Delaware, Lackawanna & Western R. R. Co.*, 64 Fed. 723, 724 (1894).

⁷⁰ 6 I.C.C. 548 (1896).

⁷¹ See pp. 154-155, *supra*.

sideration; but it does mean that value of an article does not control the rating to the extent it formerly did."⁷² In an earlier case the Commission noted that motor-carrier competition was undermining the old railroad rate structure and was "rapidly bringing down many of the rail rates on high-grade commodities which were made high because of the weight formerly given to value of the service."⁷³

LIMITATIONS ON THE VALUE PRINCIPLE

Attempts have been made to reduce to a formula the weight to be given to value of the commodity in the classification of freight. It is said that the Western Classification Committee formerly had a rule for considering value wherein the value in dollars per hundred pounds was added to the number of cubic feet per hundred pounds. Then the sum was referred to a scale for determining the proper rating.⁷⁴ In one proceeding before the Interstate Commerce Commission a formula was suggested by the complainant for giving weight to value in which a difference of \$5 per ton was to produce a difference of 1½ percent in the rate.⁷⁵ These attempts to assign a definite weight to the value element are arbitrary and would not work well in practice.

There are very definite limitations to the practice of varying rates with the value of the commodity shipped.

In the first place, the value principle disregards cost of service. Overhead or indirect costs may sometimes be ignored in rate making if conditions of demand make impossible the exaction of charges that cover a proper share of the overhead. But prime costs cannot be ignored, and low-grade commodities, notwithstanding their very low value, ought not to be transported at noncompensatory rates. This is what the Commission has in mind when it disregards value in the case of low-grade commodities and says: "Regardless of the value of the traffic the carriers are entitled to rates which are reasonable for the service which they perform."⁷⁶

⁷² *Class Rate Investigation*, 1939, 262 I.C.C. 447, 482 (1945). See also *ibid.*, p. 485.

⁷³ *Trunk Line Territory Motor Carrier Rates*, 24 M.C.C. 501, 514 (1940). The term "value of service" is used in this case as synonymous with value of the commodity.

⁷⁴ Lorenz, M. O., *Commodity Values and Freight Rates* (Washington, mimeographed, 1930), p. 2.

⁷⁵ *United Paperboard Co. v. Akron, Canton & Youngstown Ry. Co.*, 152 I.C.C. 527, 529 (1929). For another attempt to devise a formula which would assign a definite weight to value of the commodity in the classification of freight see *Class Rate Investigation*, 1939, 262 I.C.C. 447, 497-501 (1945).

⁷⁶ *Sand, Gravel, Crushed Stones & Shells within the Southwest*, 155 I.C.C. 247, 277 (1929). For a similar expression, see *Sand, Gravel, Slug, Stone & Chert*, 165 I.C.C. 731, 766 (1930).

A second limitation upon the use of value in rate making arises from the use of the device of freight classification. If commodities are to be grouped in a limited number of classes, small differences in values cannot be made the basis of differences in rates. To do so would break down the classifications.

A third limitation arises from the impracticability of distinguishing between different grades of the same commodity. Although this is done to some extent, it is subject to disadvantages already noted.

A fourth limitation on the use of value as a controlling factor in rate making results from the fact, already noted, that the value of the article may not measure the value of the service. We have already pointed out that sometimes articles of high value must take low rates. Whenever the value of the service is determined by other factors than the value of the article, value must yield to the more relevant facts.

Another limitation on the use of value appears when an attempt is made to distinguish between old and new articles of the same kind. It would be consistent with the use of the value principle to have low rates on used and second-hand articles. The Interstate Commerce Commission has frequently held, however, that lower rates on such articles could not be required.⁷⁷ The reason for this departure from the value principle lies in the possibility of misbilling. Goods would be shipped as used or second-hand when in fact they were not. The maintenance of lower rates on used articles leads to attempts to defraud the carrier. For the same reason the Commission has refused to require lower rates on damaged articles than on undamaged ones.⁷⁸

Lastly, if the value principle were not ignored to some extent, it would be necessary to change rates as market values rise and fall. Manifestly it would be impossible to vary freight rates from day to day or from week to week as market prices changed. For this reason

⁷⁷ E.g., *Continental File Co. v. Pittsburgh, Cincinnati, Chicago & St. Louis R. R. Co.*, 93 I.C.C. 373 (1924); *West Virginia Rail Co. v. Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co.*, 48 I.C.C. 675 (1918); *Whitcomb v. Chicago & North Western Ry. Co.*, 15 I.C.C. 27 (1909).

⁷⁸ *Minneapolis Traffic Assoc. v. Chicago & North Western Ry. Co.*, 23 I.C.C. 432 (1912); *Lesser v. Georgia R. R.*, 18 I.C.C. 478 (1910); *Danciger v. Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co.*, 29 I.C.C. 99 (1914); *Burlart Mfg. Co. v. Baltimore & Ohio R. R. Co.*, 225 I.C.C. 140 (1937). When articles have a value only for purposes of junk, such as iron and steel articles which can only be used for remelting, they constitute, in fact, junk, and are given low rates. But if they have a value for other purposes, even though actually used for remelting, they are not entitled to the junk rate. *Alaska Junk Co. v. Spokane, Portland & Seattle Ry. Co.*, 98 I.C.C. 551 (1925).

short-time fluctuations in values must be ignored.⁷⁹ Long-time changes in prices, however, may make changes in rates necessary. In one case the Commission required a reduction in the rating of synthetic gum because of a decline in price from 90 cents to 26 cents per pound over a period of about ten years.⁸⁰ Consideration of changes in the prices of commodities over a period of years in adjusting rates is required by the Hoch-Smith Resolution which provides that the Commission in adjusting rates shall "give due regard . . . to the general and comparative levels in market value of the various classes and kinds of commodities as indicated over a reasonable period of years."⁸¹

RAW MATERIALS AND FINISHED PRODUCTS

Whether a commodity is a raw material or a finished product is sometimes considered as significant in determining the reasonableness of rates. Finished products generally take higher rates than the materials out of which they are made. In the same way, articles in an incomplete stage of manufacture are often accorded lower rates than finished articles but higher rates than the raw materials. The common relationship between rates on raw materials and finished products is a corollary to the rule that valuable commodities generally take higher rates than less valuable ones. This is because the manufactured articles are usually more valuable than the raw material. Sometimes the relationship seems to have attained the dignity of an independent rule or principle. The Interstate Commerce Commission has said, however, that "there is in fact no rule or principle of classification which requires that manufactured products be rated higher than the material from which they are made, or, conversely, that raw materials be rated lower than manufactured products."⁸²

Although the chief reason for the higher rates on finished products is their greater value, the relationship is supported by other considerations as well. The waste of part of the raw material in the process of manufacture, an important element in some instances, reduces the value of the service per unit of weight transported. Weight-losing raw ma-

⁷⁹ *Ponchatoula Farmers' Assoc. v. Illinois Central R. R. Co.*, 19 I.C.C. 513, 515 (1910); *Idaho Public Utilities Commission v. Aberdeen & Rockfish R. R. Co.*, 246 I.C.C. 183, 199 (1941).

⁸⁰ *Bakelite Corporation v. Boston & Albany R. R. Co.*, 157 I.C.C. 581 (1929), and 179 I.C.C. 461 (1931).

⁸¹ P. 253, *supra*.

⁸² *Aluminum Co. of America v. Atchison, Topeka & Santa Fe Ry. Co.*, 146 I.C.C. 363, 366 (1928).

terials, it will be recalled from a previous chapter, tend to draw manufacturing to them. Manufacturing establishments located at a distance from the sources of such raw materials may not be able to survive unless lower rates are given on the raw material than obtain on the finished product. All this is but another way of saying that the traffic will not bear high rates on such raw materials. Very frequently also the cost-of-service principle supports higher rates on finished products. Manufactured articles are frequently more bulky, more susceptible to loss and damage, and may require more careful handling and protection than raw materials. Cost of service, however, cannot justify the relationship in all instances.

The Interstate Commerce Commission often approves of a differential relationship between the rates on raw materials and finished products, and it has at times required a differential to be established. Thus the Commission has approved of rates on wire brushes higher than on the raw materials from which they were made;⁸³ on brooms than on broom corn;⁸⁴ on malt than on barley;⁸⁵ and on enameled pipe than on iron pipe.⁸⁶ The Commission has required lower ratings on unfinished bedroom sets than on finished sets,⁸⁷ and it has condemned higher rates on pulpwood than on paper.⁸⁸ The relationship is not universal, however, and the Commission has often said that a lower rate on a raw material cannot be claimed as a right.⁸⁹

The practice of varying rates according to the stage of manufacture is well illustrated by the rates on many wooden articles. Three different stages of manufacture are recognized: "in the rough," "in the white," and "finished." These terms are defined in Rule 22 of the Consolidated Freight Classification.

Since there is no reason why raw materials should necessarily take lower rates than finished products unless cost-of-service or value-of-service factors point to such a rate relationship, it is not strange that there are many exceptions. In many situations the usual relationship of rates would be unnatural and impossible to justify. Sometimes it happens that the raw material is as valuable per unit of weight, or nearly so, as the finished product. This apparently had something to do with

⁸³ 13 I.C.C. 109 (1908).

⁸⁴ 28 I.C.C. 310 (1913).

⁸⁵ 23 I.C.C. 378 (1912).

⁸⁶ 26 I.C.C. 472 (1913).

⁸⁷ 5 I.C.C. 514 (1892).

⁸⁸ 160 I.C.C. 37 (1929).

⁸⁹ E.g., *State of Iowa v. Atlantic Coast Line R. R. Co.*, 24 I.C.C. 134 (1912).

the Commission's approval of higher rates on cotton than on certain cheap cotton fabrics.⁹⁰ Sometimes the finished product is more susceptible to competition from other kinds of transportation agencies than the raw material. This apparently explained higher rates on wood pulp than on paper in one case that came before the Commission. Wood pulp is not a desirable article for water transportation companies to carry and it was therefore not subject to the competition encountered in transporting paper, which does move readily by water.⁹¹ Another exception occurs when the finished product is a by-product having low value. In such instances the by-products take low rates, but the main product usually conforms to the general rule. This can be illustrated by the rates on the various products of cottonseed crushing. Cottonseed oil is the most valuable product derived from the seed, and it sometimes takes higher rates than cottonseed. Cottonseed meal and cake are by-products having approximately the same value as the seed. They are generally carried at the rates applicable on seed or at slightly lower rates. Cottonseed hulls and linters are a less valuable by-product and are transported at still lower rates.⁹² Another exception to the general practice occurs when a certain raw material constitutes a very small part of the manufactured article. Thus amorphous sulphur is used in small quantities in the manufacture of matches. But this does not mean that amorphous sulphur should take lower rates than apply on matches.⁹³

Another cause of departure from the usual rate relationship, even when it could be justified by differences in cost of service, arises from the efforts of carriers to equalize the advantages of producers located near consuming markets with their rivals located near supplies of raw material. The constant struggle between the two groups of producers and the carriers serving them often leads to the equalization of rates on raw materials and finished products. This accounts for the fact, elsewhere pointed out, that in the United States the rates on flour and grain have generally been the same.⁹⁴ Where equality of rates on raw materials and finished products has been in existence for some time, the Commission seems loath to require the establishment of differen-

⁹⁰ *Mississippi Railroad Commission v. Alabama & Vicksburg Ry. Co.*, 89 I.C.C. 47 (1929).

⁹¹ *Crown Willamette Paper Co. v. Director General*, 78 I.C.C. 273 (1923).

⁹² *East St. Louis Cotton Oil Co. v. St. Louis & San Francisco R. R. Co.*, 20 I.C.C. 37 (1910).

⁹³ *Diamond Match Co. v. Director General*, 88 I.C.C. 435 (1924).

⁹⁴ P. 48, *supra*.

tials. This explains the refusal to disturb the grain rate adjustment,⁹⁵ and a similar relationship between the rates on crude oil and its products.⁹⁶

COMPETING COMMODITIES

What the traffic will bear is affected by any competition that may exist between two commodities. Competing commodities should take the same rates unless differences in cost of service are so great as to make equalization impracticable. This principle should not be confused with the principle previously discussed that analogous articles should take the same rates. Analogous articles are alike from the point of view of transportation costs and value. Competing articles may not be alike. If two products compete with each other, that is, if one can be used as a substitute for the other, the one burdened with the higher freight rate is at a disadvantage. This may so restrict the volume of traffic that it will be necessary to reduce the rate to that charged on the competing product. Railroads therefore tend to equalize rates on competing commodities, and regulatory authorities recognize that comparisons of rates on competing commodities are of importance in fixing reasonable or proper rates. Upon analysis it will be observed that the principle is but one illustration of the importance in rate making of the elasticity of demand for an article. An article for which there are available substitutes has an elastic demand.

The principle that competing articles should take the same rates, although recognized in cases concerning reasonableness *per se*, is of even greater importance in cases under Section 3 of the Interstate Commerce Act—the undue preference and prejudice section. Illustrations of cases involving this relationship are given in a later chapter.⁹⁷

USE OF A COMMODITY

The use to which a commodity is put may have a bearing upon the transportation charge which it can be made to stand. This is sometimes because the use made of the article gives some indication of its value. Lime used for agricultural purposes is probably of a lower grade and value than lime used for building purposes, since the former may contain impurities that would render it useless for building. The relation-

⁹⁵ *Grain and Grain Products*, 164 I.C.C. 619 (1930).

⁹⁶ *National Refining Co. v. Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.*, 20 I.C.C. 649 (1911).

⁹⁷ P. 526, *infra*.

ship between use and value has been recognized by the Commission as the reason for giving consideration to this factor in rate cases. In one case the Commission said: "Whenever reference is made in this report to the use of an article, it is for the purpose of reaching some conclusion with respect to its relative value."⁹⁸ But the use made of an article may also be of importance in indicating the kind of commodities with which an article may or does compete, or it may aid in determining whether the raw material and finished product relationship should be considered, or it may for some other reason indicate ability to pay. The Interstate Commerce Commission recognizes that the use made of an article throws light upon its ability to pay transportation charges and that it is therefore a proper factor to consider in rate making.⁹⁹

On the other hand, the Commission has steadfastly refused to permit different rates on the same commodity depending upon the use which is made of the article.¹⁰⁰ Thus the Commission has condemned the maintenance of lower rates on coke for use in blast furnaces than on coke used for other purposes.¹⁰¹ It has also objected to higher rates on mussel shells used in making buttons than on shells to be crushed for poultry feed,¹⁰² and different rates on nitrate of soda which depended on whether the product was to be used for the manufacture of gunpowder or for the manufacture of fertilizer.¹⁰³

There seem to be two major reasons for the refusal of the Commission to permit two rates on the same commodity. First, there is no difference in the cost of service. It costs no more, for instance, to haul a given quantity of nitrate of soda that is to be used in the manufacture of gunpowder than a similar quantity that is to be an ingredient in commercial fertilizer. In the second place, if the rate applicable on a commodity depends upon use, the way is opened for misrepresentation. The carrier may not be able to verify the use to be made of the article and must rely upon the statement of the shipper. The shipper is thus

⁹⁸ *Suspension of Western Classification No. 51*, 25 I.C.C. 442, 499 (1912).

⁹⁹ *Lockport Paper Co. v. Western Maryland Ry. Co.*, 87 I.C.C. 347, 349 (1924); *Lime from Eastern Trunk Line Points*, 93 I.C.C. 617, 630 (1924); *Crushed Stone from Maryland & Pennsylvania*, 89 I.C.C. 681, 684 (1924).

¹⁰⁰ *Carter White Lead Co. v. Norfolk & Western Ry. Co.*, 21 I.C.C. 41 (1911); *Davis v. West Jersey Express Co.*, 16 I.C.C. 214 (1909).

¹⁰¹ *Anaconda Copper Mining Co. v. Chicago & Eastern Illinois R. R. Co.*, 19 I.C.C. 592 (1910).

¹⁰² *Pioneer Pearl Button Co. v. St. Louis-San Francisco Ry. Co.*, 93 I.C.C. 599 (1924).

¹⁰³ *Fort Smith Traffic Bureau v. St. Louis & San Francisco R. R. Co.*, 13 I.C.C. 651 (1908).

in a position to defraud the carrier of a part of the lawful transportation charges.

Although the maintenance of rates depending upon the use to be made of an article is inconsistent with the cost-of-service principle it is not inconsistent with charging what the traffic will bear. There may be just as much reason for quoting a lower rate on an article when used for particular purposes as there is for quoting a lower rate on a cheap than a valuable grade of the same article. Either the demand for a commodity for certain uses or the demand for the transportation of the article may be affected by the rate charged. A low rate on nitrate of soda when used in the manufacture of fertilizer may be essential if the commodity is to be used for this purpose, whereas a comparatively high rate on the same product when used in the manufacture of gunpowder might not interfere at all with this use of the article. A lower rate on coke for smelting purposes might be required in order to maintain smelting furnaces which were in competition with furnaces located near a supply of coke. The same force would not require a low rate on coke used for other purposes. If the value-of-service principle of rate making has any validity whatsoever, there seems to be no reason in principle for not permitting rates which vary according to the use to be made of an article. The only sound objection to the practice is the opportunity created for defrauding the carrier.¹⁰⁴

Although the Commission does not permit rates which depend upon the use made of an article, it does permit something which is very close to the same thing. It sometimes allows the use to be made of an article to determine the proper rate or rating to apply on the theory that two commodities, or grades of commodities, although very much alike in outward appearance can be distinguished by their uses. The theory is that the differences in use are so great as to constitute the articles different commodities. Thus the Commission has recognized as proper lower rates on horses used for slaughtering than are maintained on ordinary horses.¹⁰⁵ Brick used for facing purposes may be given a higher rate than common brick.¹⁰⁶ Similarly the Commission has recognized that lime suitable for chemical and building purposes, and lime having value

¹⁰⁴ For a similar criticism of the Commission's policy on this point, see Strombeck, J. F., *Freight Classification* (Boston, Houghton Mifflin, 1912), pp. 90-97.

¹⁰⁵ *Chappell Bros. v. Chicago, Burlington & Quincy R. R. Co.*, 161 I.C.C. 677 (1930).

¹⁰⁶ *National Paving Brick Mfrs. Assoc. v. Alabama & Vicksburg Ry. Co.*, 68 I.C.C. 213 (1922); *McEwing & Thomas Co. v. Chicago & Eastern Illinois Ry. Co.*, 118 I.C.C. 211 (1926).

chiefly for agricultural purposes, may be considered as two different commodities.¹⁰⁷ In the same way sand used in the manufacture of glass is recognized as a different commodity from common sand.¹⁰⁸

CONDITIONS EXISTING IN AN INDUSTRY

The ability of a particular commodity to stand a rate is sometimes affected by the conditions of prosperity or depression within the industry which produces the commodity.¹⁰⁹ If an industry is in a depressed condition, high rates may result in curtailed production. Conversely, if the industry is prosperous, rates may be increased without affecting production. For this reason the Commission has long recognized that the conditions existing in an industry may be taken into consideration in determining the reasonableness of rates. This position has the approval of the United States Supreme Court for in *Ann Arbor Railroad Co. v. United States* the Court said: "In rate making under existing laws it has been recognized that conditions in a particular industry may and should be considered along with other factors in fixing rates for that industry and in determining their reasonableness."¹¹⁰ The principle received special emphasis in the Hoch-Smith Resolution, passed by Congress in 1925, which declared that the "true policy" to be observed by the Interstate Commerce Commission in adjusting rates was "that the conditions which at any given time prevail in our several industries should be considered in so far as it is legally possible to do so, to the end that commodities may freely move."

The principle that rates should be adjusted in accordance with the economic conditions existing in an industry may easily be abused. It is valid only in so far as it indicates ability to pay transportation charges. It is not valid when used to help one class of individuals at the expense of another. The Interstate Commerce Commission has emphatically declared that it is not justified in reducing rates on a commodity merely to relieve a distressed industry. This position was taken in a number of cases which came up after World War I when the agricultural interests argued for lower rates on the products of agriculture on the ground

¹⁰⁷ *Eastern Lime Mfrs. Traffic Bureau v. Akron & Barberton Belt R. R. Co.*, 112 I.C.C. 7 (1926).

¹⁰⁸ *American Window Glass Co. v. Baltimore & Ohio R. R. Co.*, 155 I.C.C. 301 (1929).

¹⁰⁹ We are here considering an industry as a whole, and not the prosperity or lack of it on the part of a particular shipper or of the industry in one locality as compared with another. This latter situation affects geographical relationships in rates and will be considered in the following chapter.

¹¹⁰ 281 U.S. 658, 667 (1930).

that the industry was in a depressed condition. These pleas were, as a rule, unsuccessful.¹¹¹ The soundness of the Commission's reasoning on the question of reducing rates to help a distressed industry cannot be questioned. If the rates are reduced to help out one industry, the burden of the reduction must be borne by the railroads or shifted to other shippers and consumers by increasing the rates on other products. The railroad is not an eleemosynary institution and ought not to be required to forego reasonable compensation for the services it renders. Neither is there any justification for shifting the burden on other groups of people by increasing rates which are reasonable in themselves. The Commission has also pointed out that if rates must be reduced to aid depressed industries, the converse of the proposition must also be true, and carriers ought, therefore, to be allowed to charge high rates on particular products merely for the reason that the industry is prosperous and the carriers wish to absorb part of the profits of the industry. The Commission long ago held that the carriers had no such right,¹¹² and one of the Federal courts has held that "carriers have no right to graduate their charges in proportion to the prosperity which comes to industries whose products they transport."¹¹³

The Interstate Commerce Commission seems to recognize that the depressed condition of an industry is a proper factor to be considered in determining the reasonableness of rates only to the extent that it indicates ability to pay. Thus, in a case involving rates on wool, the Commission said: "If the condition of this industry is such that it can not flourish, that the traffic will not move for the reason that the wool itself will not be produced, that, certainly, is a circumstance which may be considered in comparing this rate with those upon other commodities."¹¹⁴ In another case the Commission said: "... the condition of an industry has an influence upon the ability of a commodity produced by that industry to bear a rate, which in turn may have a bearing upon the reasonableness of the rate charged."¹¹⁵ Notwithstanding declara-

¹¹¹ See *National Livestock Shippers League v. Atchison, Topeka & Santa Fe Ry. Co.*, 63 I.C.C. 107 (1921). and *Rates and Charges on Grain and Grain Products*, 91 I.C.C. 105 (1924).

¹¹² *Tift v. Southern Ry. Co.*, 10 I.C.C. 548, 582 (1905); *Central Yellow Pine Assoc. v. Illinois Central Ry. Co.*, 10 I.C.C. 505 (1905).

¹¹³ *Tift v. Southern Ry. Co.*, 138 Fed. 753 (1905).

¹¹⁴ *In re Transportation of Wool, Hides & Pelts*, 23 I.C.C. 151, 156 (1912).

¹¹⁵ *Utah-Idaho Millers & Grain Dealers Assoc. v. Denver & Rio Grande R. R. Co.*, 44 I.C.C. 714, 726 (1917). See also *Rates and Charges on Grain & Grain Products*, 91 I.C.C. 105, 143 (1924); *Cattle Raisers' Assoc. v. Missouri, Kansas & Texas R. R. Co.*, 11 I.C.C. 296, 348 (1905); *Livestock—Western District Rates*, 190 I.C.C. 611, 633 (1933).

tions of this sort it is not clear that consideration of the conditions existing in an industry has been confined to the situations in which a relationship has been established between these conditions and the ability of traffic to stand certain rates.

PUBLIC POLICY

We have now completed the discussion of the more important factors affecting the ability of traffic to stand a large or a small share of the constant or overhead expenses of a railroad. But there is one more factor sometimes considered in determining the reasonableness of rates. This is whether the general public welfare requires a high or low rate on the commodity in question. This is not a matter of the ability of the article to stand a high transportation charge, but whether it is deemed desirable, in the public interest, to encourage or discourage the movement of the commodity, and bring about some desired social or economic result. The Commission has spoken approvingly of higher rates on luxuries than on necessary articles,¹¹⁶ and in one case it implied that high rates on tobacco were justifiable on the ground that it is a luxury rather than a necessity.¹¹⁷ The Commission has also maintained that the public interest requires low rates on materials used in manufacturing and in construction.¹¹⁸ Low rates on fertilizer have been held desirable on account of the "need for continued progress in the use of fertilizer."¹¹⁹ In another case the Commission admonished the carriers to lower their rates on waste paper with the observation that the "utilization of waste materials is of economic value to the country."¹²⁰ The Commission has been hesitant about permitting any sort of a rate adjustment that would lead to a monopoly in any branch of industry or trade. This factor was mentioned in the Planters Compress case where the Commission refused to require lower rates on the special high-density bales.¹²¹

Although public welfare and social good have apparently been considered in cases like those mentioned, these considerations may not, after all, have been given much weight. In fact, to allow considerations of

¹¹⁶ *In the Matter of the Investigation & Suspension of Advances in Rates on Coal*, 22 I.C.C. 604, 623 (1912).

¹¹⁷ *Tobacco Merchants Assoc. v. Aberdeen & Rockfish R. R. Co.*, 181 I.C.C. 199, 211 (1931).

¹¹⁸ *Colorado Fuel & Iron Co. v. Southern Pacific Co.*, 6 I.C.C. 488, 515 (1895).

¹¹⁹ *Fertilizers Between Southern Points*, 113 I.C.C. 389, 421 (1926). See also *American Potash & Chemical Corp. v. Aberdeen & Rockfish R. R. Co.*, 258 I.C.C. 743, 757 (1944).

¹²⁰ *Reduced Rates*, 1922, 68 I.C.C. 676, 720 (1922).

¹²¹ 11 I.C.C. 382, 407 (1905).

public policy and welfare to influence a rate case is wholly inconsistent with the common pronouncement of the Commission that the reasonableness of rates on particular articles is to be determined by their "transportation characteristics." The Commission apparently feels that it is on rather insecure ground if it gives weight to public welfare. In many cases the Commission has definitely refused to consider such matters. Thus the Commission has refused to require lower rates on laboratory furniture than on other furniture, notwithstanding the plea that the former was used for educational and research purposes and that the public interest therefore required low rates.¹²² In like manner the Commission refused to heed the argument that low rates should be required on school books.¹²³ In another case manufacturers of bedding objected to a proposal for low rates on used mattresses because of the danger to health in the use of old bedding. The Commission held that "considerations affecting public health have but little relevancy in determining the reasonableness of freight rates."¹²⁴ The Commission is especially loath to consider broad questions of economic and social welfare when the policy involved is one concerning which a prior expression by legislative authority would be more appropriate if the policy is to influence rate making. Thus the Commission refused to require lower rates on grain when the plea was based on the desirability of extending the area of wheat cultivation and thereby increasing domestic production.¹²⁵ For a similar reason the Commission once refused to require lower rates on flour for export than on wheat, when the purpose of the proposed adjustment was to discourage the direct exportation of wheat and to encourage the milling of the wheat into flour in the United States.¹²⁶ The United States Supreme Court has also pointed out that the standards set up by the Interstate Commerce Act "are transportation standards, not criteria of general welfare."¹²⁷

The general conclusion to be drawn from these cases is that although the Commission sometimes recognizes the economic and social effects of certain rates, it is on insecure ground if it modifies rates otherwise

¹²² *Rate Structure Investigation. Part 5—Furniture*, 177 I.C.C. 5, 62 (1931).

¹²³ *American Book Co. v. Ann Arbor R. R. Co.*, 129 I.C.C. 372 (1927).

¹²⁴ *American Cotton Waste & Lumber Exchange v. Baltimore & Ohio R. R. Co.*, 169 I.C.C. 710, 711 (1930).

¹²⁵ *Railroad Commissioners v. Butte, Anaconda & Pacific Ry. Co.*, 31 I.C.C. 641, 653 (1914).

¹²⁶ *Butte Milling Co. v. Chicago & Alton R. R. Co.*, 15 I.C.C. 351 (1909).

¹²⁷ *Texas & Pacific Ry. Co. v. United States*, 289 U.S. 627, 638 (1933).

reasonable out of deference to these consequences. No definite pronouncement can be made concerning the influence of such factors in rate regulation other than the general observation that except in unusual circumstances they are given but little weight.

RATE MAKING IS A MATTER OF JUDGMENT

Theoretically the reasonableness of rates should be determined by ascertaining the direct expenses involved in moving a certain commodity. Then, after a study of the various demand factors mentioned in preceding pages, the overhead costs should be distributed with some regard to the principle of what the traffic will bear. But as a matter of fact the reasonableness of rates is not determined exactly in this way, although the results are often approximately the same. The regulating body, as we have seen, uses the comparative method. Rates on the commodities in question are compared with rates on similar commodities. Cost factors and ability-to-pay factors are compared, and the Commission arrives at a conclusion. The weight accorded to the various factors is not usually stated, and the process by which the conclusion was reached is often not revealed. This gives a mysterious appearance to rate decisions. As one writer has put it: "It may appear that the Commission thrusts its hand into the darkness, and a reasonable rate is plucked back like a rabbit from a conjuror's hat."¹²⁸ The recognized principles of rate reasonableness, however, are not difficult to understand when isolated and considered separately. The difficulty comes in reaching a conclusion in a particular case, where many factors, often pointing to divergent results, are combined. In the words of a Federal court, "... it is beyond the sphere of human ingenuity to establish a rule of mathematical certainty whereby a rate may be ascertained as reasonable or unreasonable."¹²⁹

SELECTED REFERENCES

The principles involved in adjusting rates on particular commodities are usually discussed in connection with freight classification. One of the most complete discussions is J. F. Strombeck, *Freight Classification* (Boston, Houghton Mifflin, 1912). Other references pertinent to the discussion in the chapter are J. H. Aldredge, *Rate Making for Common Carriers* (Atlanta, The Harrison Co., 1929), parts of chs. III and IV; Edgar Watkins, *Watkins on Shippers and Carriers*, 4th ed. (Atlanta, The Harrison Co., 1930), parts of ch. III; W. T. Jackman, *Economics of Transportation* (Chicago, A. W. Shaw Co., 1926), pp. 158-205,

¹²⁸ Hull, Henry, "Reasonable Rates," 15 *Michigan Law Review* 478, 486 (1917).

¹²⁹ *Hudson & Manhattan R. R. Co. v. United States*, 35 F. Supp. 495, 496 (1940).

263-272, 362-365; M. B. Hammond, *Railway Rate Theories of the Interstate Commerce Commission* (Cambridge, Harvard University, 1911), pp. 13-69; I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), pp. 476-527.

The *Northern Pacific Railway v. North Dakota* decision is the basis of an article by Raymond T. Bye on "Social Welfare in Rate Making," 32 *Political Science Quarterly* 522 (1917). The article by H. W. Edgerton entitled "Value of the Service as a Factor in Rate Making," 32 *Harvard Law Review* 516 (1919), although containing some economic fallacies is a valuable piece of work. Another valuable article is R. L. Hale, "Commissions, Rates, and Policies," 53 *Harvard Law Review* 1103 (1940).

CHAPTER XIX

REASONABLENESS OF RATES BETWEEN PARTICULAR POINTS

THE previous chapter was concerned with rates on particular commodities; the present one deals with rates between particular points. As in the former chapter the discussion may be grouped about a few recognized principles of reasonableness.

RATES TO RESTRICT MOVEMENT

Although the motive of the carrier in adjusting rates is not ordinarily determinative of the reasonableness of the rates charged, the Interstate Commerce Commission recognizes the principle that rates designed to restrict the movement of a commodity are unreasonable. The Commission looks askance at any rate adjustment that seems to have been designed to prevent the normal movement of commodities to market. Cases of this sort frequently arise from the desire of a railroad company to preserve markets on its lines to producers who are also located on its lines. The railroad may therefore attempt to maintain higher rates from producing points located off its lines.¹ Carriers in the western grain-growing States have sometimes maintained higher rates on grain westward than eastward in order to keep the traffic moving to eastern markets thereby giving railroads a longer haul.² Cases have arisen in which a carrier had prohibitive rates on ties or other lumber products from points on its own lines in order to enable it to purchase these products for its own use at a lower price.³ Rates of this sort have been strongly condemned by regulatory authorities as unreasonable.⁴ The Interstate Commerce Commission has said: "A carrier has no right, under the guise of reserving to itself the long haul, to restrict the markets of its shippers."⁵ In another case the Commission said: "Rates should be a medium for effecting the movement of commerce from one point to another and no carrier has the right, by erecting barriers of prohibitive

¹ See *Rates on Plaster and Gypsum Rock*, 27 I.C.C. 67 (1913); *Coal to South Dakota*, 47 I.C.C. 750 (1917); *Wichita Falls System Joint Coal Rate Cases*, 26 I.C.C. 216 (1913).

² See *Board of Railroad Commissioners of South Dakota v. Atchison, Topeka & Santa Fe Ry. Co.*, 151 I.C.C. 431 (1929).

³ *Cedar Lumber Products Case*, 3 Canadian Railway Cases 412 (1904).

⁴ Such rates are often held to be discriminatory or unduly prejudicial, also.

⁵ 151 I.C.C. 431, 444 (1929).

rates, to restrict the sources from which a consuming point may supply its needs."⁶

PROTECTION OF VESTED INTERESTS

The common railroad practice of granting preferential rates in order to build up a particular industry raises the question of the power of the railroads to increase such a rate at a later date, even though it may destroy the industry in question and the investments which people have made in it. The early position of the Commission was that when the investment of capital in an industry was made upon the strength of a particular rate, the rate could not be subsequently increased without a careful consideration of its effects upon the industry. In one case the Commission said: "This Commission has several times held that where a particular industry has grown up under rates voluntarily established and maintained by carriers these rates can not be advanced without considering the effect upon that industry."⁷ In 1908 the Commission, acting upon this principle, found increased rates unreasonable on lumber from the Willamette Valley.⁸ The carrier had previously granted low rates to the industry, and capital had been invested in the belief that the low rates would continue. The order of the Commission requiring the increased rates to be reduced was set aside by the United States Supreme Court because the order had been "based upon the belief by the Commission that it had the right under the law to protect the lumber interests of the Willamette Valley from the consequences which it was deemed would arise from a change of the rate, even if that change was from an unreasonably low rate which had prevailed for some time to a just and reasonable charge for the service rendered for the future."⁹ In commenting upon this decision the Commission later said that it had always believed that it could, in a proper case, order the continued maintenance of a rate upon which the investment of money had been induced, even though it could not have required the establishment of so low a rate in the first instance. The Commission reasserted its right to do this on the grounds that otherwise the property rights of shippers would rest "in the

⁶ *Coal to South Dakota*, 47 I.C.C. 750, 754 (1917). For comments of like purport, see *Cardiff Coal Co. v. Chicago, Milwaukee & St. Paul Ry. Co.*, 13 I.C.C. 460 (1908), pp. 464-467; *Star Grain & Lumber Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 14 I.C.C. 364, 367-368 (1908).

⁷ *Beatrice Creamery Co. v. Illinois Central R. R. Co.*, 15 I.C.C. 109, 128 (1909). See also *Green Bay Business Men's Assoc. v. Baltimore & Ohio R. R. Co.*, 15 I.C.C. 59, 64 (1909).

⁸ *Western Oregon Lumber Manufacturers Assoc. v. Southern Pacific Co.*, 14 I.C.C. 61.

⁹ *Southern Pacific Co. v. Interstate Commerce Commission*, 219 U.S. 453 (1911).

arbitrary whim of the carrier without the right of appeal to any tribunal." The Commission declared that it did not consider that the Supreme Court decision in the Southern Pacific case prevented it from considering this factor. It appears from later cases, however, that the Commission has brought its policy into conformity with the views of the Supreme Court in cases where this issue arises. "However reluctant the Commission may feel to sanction changes in rates which tend to impair or destroy the value of investments made in expectation of their continuance, it can not on that ground deny to the carriers the right to charge rates which are just and reasonable."¹⁰ In some of the cases the Commission has stated that impairment of investments made in expectation of the continuance of certain rates may be considered in rate cases, although it cannot be made controlling. In other cases the Commission has expressed doubt whether this sort of evidence can be considered at all.¹¹ It may be taken as settled that the Commission may not prevent the increase of low rates, even when their continuance is necessary to prevent the destruction of an industry which was led to invest capital upon the understanding, expressed or implied, that the low rates would continue.

OUT-OF-POCKET COSTS

In the last chapter it was pointed out that the carriers may not reduce rates on particular commodities below out-of-pocket costs. The same principle applies in connection with rates between particular points. As the Commission said in a case involving proposed reductions in rates to the Pacific Coast: "Carriers proposing reduced rates are subject to the limitation . . . that they may not establish rates which will produce less than the out-of-pocket cost of rendering the transportation and thus unduly burden other traffic."¹² This principle often comes into play when the carriers desire to reduce rates on account of some competitive situation.

COST OF SERVICE

Although carriers may, under some conditions, reduce rates between particular points to out-of-pocket costs, the Commission cannot compel

¹⁰ *Chattanooga Log Rates*, 35 I.C.C. 163, 168 (1915). For similar statements, see 1915 *Western Rate Advance Case, Part II*, 37 I.C.C. 114, 146 (1915); *Roanoke Railroad & Lumber Co. v. Norfolk Southern Ry. Co.*, 41 I.C.C. 431, 433 (1916); *Crawford & Bunce v. Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co.*, 32 I.C.C. 12, 14 (1914).

¹¹ *Duluth Log Rates*, 29 I.C.C. 420, 421 (1914); *Mercantile Lumber Co. v. Illinois Central R. R. Co.*, 53 I.C.C. 663, 666 (1914).

¹² *Reduced Commodity Rates to Pacific Coast*, 89 I.C.C. 512, 530 (1924).

them to do so. The rule of *Northern Pacific Railway v. North Dakota*,¹³ which prevents regulatory authorities from prescribing rates on particular commodities below the full cost of the service, undoubtedly applies with equal force to rates between particular points. But here a complication enters. In attempting to determine the actual cost of transporting goods between particular points, one encounters greatly varying costs on different portions of the same railway, and on different portions of the same line. Must the rates between A and B be based on the exact cost of moving goods over that portion of its lines or may average costs for the system be used? Although branch-line rates are often higher than main-line rates, and rates on some sections of a line are often higher than on others, the courts have held that rates cannot be overthrown as confiscatory if unprofitable on a portion of the carrier's lines. In the words of the Supreme Court: "the company cannot claim the right to earn a net profit from every mile, section, or other part into which the road might be divided, nor attack as unjust a regulation which fixed a rate at which some such part would be unremunerative."¹⁴

RATE COMPARISONS

Most rate cases are decided without an analysis of cost of service in the absolute sense. Regulatory authorities rely on rate comparisons for the purpose of judging the reasonableness of rates between particular points just as they do on particular articles. The rates in question are compared with rates for similar distances in the same or in different territories. Sometimes the comparisons are made directly. Sometimes they are reduced to earnings per ton-mile, or per car-mile. But in all cases of this sort an attempt is made to judge the rate in question by comparing it with other rates which are set up, tentatively at least, as a standard. Comparisons of one sort or another are used in almost all rate cases. The validity of the comparison depends in large measure upon the similarity of operating and traffic conditions in the two areas. The greater the similarity, the greater the value of the comparison.

We may now turn to a consideration of the various cost factors which justify higher or lower rates on one haul than on another.

¹³ See pp. 435-438, *supra*.

¹⁴ *St. Louis & San Francisco Ry. Co. v. Gill*, 156 U.S. 649, 665-666 (1895). See also *Puget Sound Traction Co. v. Reynolds*, 244 U.S. 574 (1917). The Commission has recognized this principle in numerous cases. *Billings Chamber of Commerce v. Chicago, Burlington & Quincy R. R. Co.*, 19 I.C.C. 71, 75 (1910); *Louisville & Nashville R. R. Coal & Coke Rates*, 26 I.C.C. 20, 30 (1913); *Wellington Mmes Co. v. Colorado & Southern Ry. Co.*, 39 I.C.C. 202, 205 (1916).

DISTANCE

Obviously one of the most important considerations affecting cost of service is the length of the haul. The cost of transportation necessarily increases with distance, although not in direct proportion. For this reason rates for longer hauls should ordinarily exceed the rates for shorter ones. This accounts for the tendency of the Commission to adjust rates on a distance basis when confronted with a case which involves an entire rate structure. It will be recalled, however, that notwithstanding the extensive use of the distance principle, the Commission has approved the use of group and blanket rates which result in equal charges for distances varying by hundreds or even thousands of miles.¹⁵ The Commission also permits carriers to ignore differences in distance in meeting the competition of other carriers. The latter tendency is most easily observed in cases involving market competition.

DIFFERENCES IN OPERATING CONDITIONS

Costs of operation for equal distances over different roads, or over different parts of the same road, may vary considerably as a result of differences in operating conditions. Frequently the existence of heavy grades and sharp curves makes operating expenses higher in one area than in another, and justifies higher rates.¹⁶ Sometimes the existence of numerous or expensive bridges between certain points justifies a difference in rates.¹⁷ Heavy snows and extremely low temperatures in winter likewise increase operating expenses on certain lines.¹⁸ Frequent rains causing washouts, an inadequate supply of fuel or water which necessitates hauling for great distances, or, in brief, any unusual condition making for higher operating costs may justify higher rates.

Notwithstanding this principle, it is well to recall that in many rate cases the Commission is called upon to determine the reasonableness of rates over a large area and customarily makes rates with respect to the general transportation conditions in the area or region. The Commission sometimes prescribes a single level of rates on particular commodities which are to apply throughout the entire country or large parts of it.

¹⁵ Pp. 196-199, *supra*.

¹⁶ E.g., *Railroad Commission of Arkansas v. Missouri & North Arkansas R. R. Co.*, 30 I.C.C. 488 (1914); *American Asphalt Assoc. v. Uintah Ry. Co.*, 13 I.C.C. 196 (1908); *Cedar Hill Coal & Coke Co. v. Colorado Southern Ry. Co.*, 16 I.C.C. 387 (1909).

¹⁷ *Knapp v. Big Sandy & Kentucky River Ry. Co.*, 62 I.C.C. 345 (1921); *Paducah Board of Trade v. Illinois Central R. R. Co.*, 37 I.C.C. 719 (1916).

¹⁸ *New England Lumber Rates*, 43 I.C.C. 641 (1917).

MULTIPLE-LINE HAULS

A special circumstance affecting the cost of service is the number of separate rail lines over which a shipment must move between two points. The Interstate Commerce Commission very frequently permits rates on two-line hauls to be higher than for single-line hauls of equal length.¹⁹ The practice is not universal, however, and the Commission refuses to hold that as a matter of law railroads are entitled to higher rates for multiple-line hauls. Whether higher rates are permitted depends upon a showing that the multiple-line haul results in greater expense than the single-line hauls.²⁰ The higher costs of joint-line hauls result from the extra switching and billing expense involved. Transfer from one car to another may be necessary with less-than-carload shipments. The switching expense in connection with two-line hauls may be considerable at junction points in large cities, but in small communities the process of interchange may be so simple that practically no extra expense is involved. In the latter situation higher charges for two-line hauls are not justified.²¹ The extra cost involved in a multiple-line shipment is akin to an extra terminal cost. Like terminal cost, its importance diminishes as the length of the haul increases. For this reason the Commission has frequently held that a joint-line arbitrary or differential was not justified for hauls in excess of 500 miles.²² Two-line differentials are not applied when both roads are a part of the same railroad system. In the recent comprehensive class-rate cases the Commission has abandoned the use of joint-line differentials or arbitraries. This is due partly to a desire to avoid the complications inherent in the system, and partly to the fact that the supposed additional costs are not always incurred, or that similar switching and transfer expenses are often incurred on single-line shipments.²³

¹⁹ *Investigation of Alleged Unreasonable Rates on Meats*, 23 I.C.C. 656 (1912); *Wichita Board of Trade v. Atchison, Topeka & Santa Fe Ry. Co.*, 25 I.C.C. 625 (1913); *Anthracite Coal Investigation*, 104 I.C.C. 514 (1926).

²⁰ *Coakley v. Director General*, 59 I.C.C. 141, 144 (1920); *Stonega Coke & Coal Co. v. Louisville & Nashville R. R. Co.*, 39 I.C.C. 523, 551 (1916).

²¹ *Sheridan Chamber of Commerce v. Chicago, Burlington & Quincy R. R. Co.*, 26 I.C.C. 638, 649 (1913).

²² *Oklahoma Corporation Commission v. Abilene & Southern Ry.*, 98 I.C.C. 183, 248 (1925); *Pacific Guano & Fertilizer Co. v. Southern Pacific Co.*, 91 I.C.C. 228 (1924); *Memphis-Southwestern Investigation*, 77 I.C.C. 473, 516 (1923).

²³ *Southern Class Rate Investigation*, 100 I.C.C. 513, 627 (1925); *Consolidated Southwestern Cases*, 123 I.C.C. 203, 384 (1927).

TRAFFIC DENSITY

An important factor affecting the cost of particular hauls is traffic density. A large volume of traffic moving over a certain line, or portion thereof, or in a certain area, justifies low rates. Conversely, lines or areas with sparse traffic may find it necessary to charge higher rates. A high traffic density reduces the unit cost of transportation since there is more traffic over which constant operating and capital costs can be spread.

Perhaps the most striking examples of rate adjustments that recognize the effects of traffic density are those comprehensive class-rate cases in which the Commission has differentiated between the areas having a high traffic density and those in which traffic is light. A number of illustrations were pointed out in a previous chapter.²⁴ The same principle is recognized when the Commission authorizes arbitraries to be added for movements over short and weak lines. These lines usually have light traffic, and this accounts in large measure for their financial difficulties.²⁵ Differences in traffic density are recognized in the cases which permit higher rates to branch-line points than to points on main lines.²⁶

EMPTY-CAR MOVEMENT

The cost of moving traffic is often affected by the unbalanced condition of the traffic. If the volume of traffic is greater in one direction than in the other, empty cars must be hauled back. Since these cars must be hauled anyway, it is proper for the carrier to reduce its rates in the direction of the empty-car movement. This practice was recognized as proper by the Commission very early in its history.²⁷

SOME SPECIAL RATE COMPARISONS

We have seen that the reasonableness of rates on particular hauls is usually determined by rate comparisons. We have noted some of the factors which affect the cost of movement between particular points, and which may justify higher or lower rates than are charged on other hauls. Some comparisons are more convincing than others. There are certain special rate comparisons which require mention because the

²⁴ Pp. 181-185, *supra*.

²⁵ *Southern Class Rate Investigation*, 100 I.C.C. 513, 650-655 (1925); *Eastern Class-Rate Investigation*, 164 I.C.C. 314, 422-424 (1930).

²⁶ E.g., *American National Live Stock Assoc. v. Southern Pacific Co.*, 26 I.C.C. 37, 41 (1913); *Eastern Class-Rate Investigation*, 164 I.C.C. 314, 405-406 (1930).

²⁷ *James & Abbott v. East Tennessee, Virginia, & Georgia R. R. Co.*, 3 I.C.C. 225 (1889); *Schumacher Milling Co. v. Chicago, Rock Island & Pacific Ry. Co.*, 6 I.C.C. 61, 70 (1892).

rate relationships involved are so generally adhered to that they constitute distinct principles of rate making.

RATES IN THE OPPOSITE DIRECTION

Rates should ordinarily be the same in both directions. In one case the Commission said: "We have repeatedly said that where the transportation conditions affecting the movements in opposite directions between the same points are substantially similar there should be no material disparity in the rates."²⁸ Cases in which the Commission has required rates to be made the same in both directions are very numerous.²⁹ It should be carefully noted, however, that the rule is applied only when conditions are "substantially similar." There is no rule of law which requires the same rates in both directions. The general rule of the Commission is that any disparity in the rates in the two directions requires justification, at least if the difference in rates is considerable.³⁰ There are a number of special circumstances which justify higher rates in one direction than the other, and which may be pointed out by the carrier in defense of its rates. The direct costs of transporting the goods in one direction may be higher than in the other. This is frequently due to the fact that movement in one direction may be up-grade, and down-grade in the other.³¹ Empty-car movement, as already noted, may justify a difference in the rates.³² If the particular commodity in question moves in large volume in one direction, while the movement in the other direction is sporadic and unusual, higher rates in the direction of sporadic movement are justified.³³ This is particularly true where commodity rates have been granted in one direction on account of the large volume of movement, while class rates are maintained in the other.³⁴ Sometimes competitive conditions depress the rate in one direction and not in the other.³⁵

²⁸ *Rates to and from Nashville*, 61 I.C.C. 308, 334 (1921).

²⁹ *E.g., Hayward Bros. Shoe Co. v. Chicago, Milwaukee & St. Paul Ry. Co.*, 93 I.C.C. 243 (1924); *Parkerburg Rig & Reel Co. v. Union Pacific R. R. Co.*, 136 I.C.C. 327 (1927).

³⁰ *New Bedford Board of Commerce v. Atlantic & West Point R. R. Co.*, 152 I.C.C. 122, 124 (1929); *Garrett & Co. v. New York Central R. R. Co.*, 112 I.C.C. 519, 521 (1926); *Hyman-Michaels Co. v. Director General*, 80 I.C.C. 703, 705 (1923).

³¹ *Sonken-Galamba Corp. v. Chicago & Alton R. R. Co.*, 181 I.C.C. 229, 247 (1932).

³² This was mentioned in *Weil v. Pennsylvania R. R. Co.*, 11 I.C.C. 627, 630 (1906).

³³ *Liggett & Myers Tobacco Co. v. Director General*, 58 I.C.C. 196 (1920); *Meridian Cellulose Co. v. Director General*, 57 I.C.C. 283 (1920); *Little Rock Freight Bureau v. Missouri Pacific Ry. Co.*, 51 I.C.C. 23 (1918).

³⁴ *Parlin & Orendorff Co. v. Southern Pacific Co.*, 42 I.C.C. 29 (1916).

³⁵ *Murray Co. v. Alabama Great Southern R. R. Co.*, 168 I.C.C. 795, 797 (1930); *Weil v. Pennsylvania R. R. Co.*, 11 I.C.C. 627, 630 (1906).

RATES HIGHER THAN TO A MORE DISTANT POINT

The Commission holds that there is a presumption of unreasonableness if a rate exceeds rates to or from a more distant point on the same line. Section 4 of the Interstate Commerce Act prohibits higher charges for shorter than for longer hauls over the same line and in the same direction as a special form of unjust discrimination. But we are not referring here to unjust discrimination or to the prohibitions of Section 4, but to the policy of the Commission in determining the reasonableness of rates under Section 1. In the words of the Commission, a greater charge for a shorter than for a longer haul over the same route is "*prima facie* unreasonable."³⁶ The Commission has many times required the reduction of rates under Section 1 because they exceeded rates to or from points beyond.³⁷ The holding of the Commission on this point seems to be dictated by the pronouncement of the United States Supreme Court in 1925 that: "Apart from statutory enactment it is *prima facie* unreasonable to charge more for a shorter than a longer haul."³⁸

The significance of the phrase "*prima facie*" should not be overlooked in the above expressions. The phrase means that a presumption of unreasonableness is created by the higher charge for the shorter haul, but this presumption may be rebutted by the carrier. It throws the burden of proof upon the carrier to justify the anomalous rate adjustment. It would be absurd to hold that rates in excess of those to more distant points are necessarily unreasonable, for it may be that the low through rate is too low rather than that the intermediate rate is too high. But it is up to the carrier to find adequate justification for the apparent anomaly in the rate structure.

The presumption of unreasonableness attaching to the higher rate may be overcome by showing that the local rate is not unreasonable *per se*,³⁹ or that the through rate is less than a reasonable rate or is depressed by competition.⁴⁰ The latter point is easily established when it can be shown that the Commission has previously approved the rate

³⁶ *Fulton Bag & Cotton Mills v. New York Central R. R. Co.*, 139 I.C.C. 225, 227 (1928).

³⁷ Illustrations are *Southern Scrap Material Co. v. Louisville & Nashville R. R. Co.*, 140 I.C.C. 573 (1928); *Schonthal Co. v. New York Central R. R. Co.*, 139 I.C.C. 354 (1928); *Cardosi & Co. v. Baltimore & Ohio R. R. Co.*, 122 I.C.C. 1 (1927).

³⁸ *Patterson v. Louisville & Nashville R. R. Co.*, 269 U.S. 1, 11.

³⁹ E.g., *Flaccus Oak Leather Co. v. New York, New Haven & Hartford R. R. Co.*, 147 I.C.C. 135 (1928); *Forcum James Lumber & Coöperage Co. v. Illinois Central R. R. Co.*, 132 I.C.C. 293 (1927).

⁴⁰ *Chicago Mica Co. v. Chicago & Eastern Illinois Ry. Co.*, 142 I.C.C. 291 (1928)

relationship by granting the carrier authority to depart from the Long-and-Short-Haul Clause, that is, authority to maintain a lower through rate.⁴¹

THE AGGREGATE-OF-INTERMEDIATES RULE

In an earlier chapter it was pointed out that distance tariffs are usually constructed on the tapering principle.⁴² In other words, although rates usually increase with distance, the rate per mile is less for longer distances. If the tapering principle is justified, as is generally recognized, the charge for a 500-mile haul should be less than the charge for two hauls of 250 miles each. It follows, therefore, that a through rate between two points should be less than the sum of the rates to and from an intermediate point. Although the Interstate Commerce Commission does not require a through rate to be less than the sum of the intermediate rates, there is a long-standing rule that through rates in excess of the aggregate of the intermediate rates are *prima facie* unreasonable. This principle found recognition in early reports of the Commission.⁴³ The rule is not an absolute one as is indicated by the phrase "*prima facie*." The carrier may overcome the presumption of unreasonableness attaching to such rates.

Through rates which are higher than the aggregate of the intermediates not only fall under the Commission's condemnation as unreasonable under Section 1, but they are specifically prohibited by a clause in Section 4 which provides that railroads may not charge "any greater compensation as a through rate than the aggregate of intermediate rates subject to the provisions of this Act." The aggregate-of-intermediates clause was added to Section 4 by the Mann-Elkins Act of 1910. Relief may be granted from its provisions by the Commission in the same manner as from the long-and-short-haul provisions of the same section.

In 1931 Commissioner McManamy stated that the Commission had rarely granted relief from the aggregate-of-intermediates rule,⁴⁴ but his statement hardly holds good at the present time. There are numerous instances in which the presumption of unreasonableness attaching to a

⁴¹ *Scharff-Koken Manufacturing Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 151 I.C.C. 270, 278, (1929); *French Lick Springs Hotel Co. v. Chicago, Indianapolis & Louisville Ry. Co.*, 148 I.C.C. 737, 739 (1928).

⁴² Pp. 177-180, *supra*.

⁴³ *Savannah Bureau of Freight v. Charleston & Savannah Ry. Co.*, 7 I.C.C. 601, 609-610 (1898); *Hardenberg, Dolson & Gray v. Northern Pacific Ry. Co.*, 14 I.C.C. 579 (1908).

⁴⁴ Dissenting opinion in *Western Salt Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 181 I.C.C. 131, 133-134.

through rate in excess of the aggregate of intermediates has been overcome by showing the existence of competition which has depressed rates at intermediate points but which has not affected long-distance through rates. In such situations the Commission has frequently granted relief from the prohibitions of the aggregate-of-intermediates clause of Section 4. The Commission has granted relief from the aggregate-of-intermediates rule when intermediate-point rates were depressed by water competition,⁴⁵ by motor-truck competition,⁴⁶ and even by market competition.⁴⁷ Granting relief in such cases is consistent with the policy of granting relief from the Long-and-Short-Haul Clause to permit carriers to meet competition at through points without reducing rates at intermediate points where no competition is encountered.⁴⁸ In principle there is no reason for a different policy in cases involving the aggregate-of-intermediates provision of the law and in cases involving the Long-and-Short-Haul Clause. The only reason for a different rule in the two situations would seem to be that a shipper may be able to defeat the higher through rate by accepting delivery at an intermediate point and reshipping to final destination, thereby obtaining a rate equal to the lower aggregate of intermediates, while another shipper, who was unaware of the peculiar adjustment, would ship directly to the through point and would be forced to pay a higher rate. Such a situation would give one shipper an advantage over another, and would amount to an unjust discrimination.

DEMAND FACTORS

We now turn to a consideration of factors affecting the demand for transportation service which may modify rates that are reasonable from the standpoint of absolute or relative cost of service.

COMPETITION⁴⁹

It is important to examine the extent to which the reasonableness of rates is influenced by carrier competition. In an earlier chapter it

⁴⁵ *Printing Paper from Houston, Tex., to Chicago, Ill.*, 251 I.C.C. 507 (1942); *Black-strap Molasses from Louisiana Points*, 253 I.C.C. 406 (1942).

⁴⁶ *Automobiles & Parts to Louisiana & Arkansas*, 211 I.C.C. 323 (1935); *Automobiles & Chassis to Chicago, Ill.*, 215 I.C.C. 495 (1936), 227 I.C.C. 223 (1928); *Vegetables from Florida to Eastern Points*, 219 I.C.C. 206 (1936).

⁴⁷ *Baker-Lockwood Mfg. Co. v. Alabama Great Southern R. R. Co.*, 198 I.C.C. 401 (1934).

⁴⁸ See ch. XXII.

⁴⁹ Strictly speaking, carrier competition is not a value-of-service factor, since it relates not to the ability of traffic to stand a transportation charge but to the ability of a particular carrier to charge a certain rate without diversion of the traffic to a rival.

was pointed out that important modifications of the rate structure result from competition among carriers.⁵⁰ In the present chapter we have also noted that carriers may voluntarily maintain rates lower than may be prescribed by a commission.

The first point, then, that needs to be noted is that competition frequently causes carriers to establish rates below the normal or reasonable level. Such rates are less than maximum reasonable rates, but they may not be unreasonably low. The Commission has many times recognized the right of carriers to reduce rates to meet competition if they so desire.⁵¹ Two limitations, however, are placed upon this right: (1) the rates must be compensatory,⁵² and (2) they must not give rise to undue preference or prejudice under Section 3 of the Interstate Commerce Act.⁵³ In addition to these limitations it must be recognized that the Commission may intervene when necessary to prevent ruinous rate wars and to protect a rate structure found to be reasonable.⁵⁴ Notwithstanding these limitations, the railroads are free to a considerable extent to determine whether for competitive reasons they will charge rates for particular services which are lower than the basis which the Commission has found to be reasonable.

A second point relating to competition and reasonable rates is that a carrier cannot be compelled against its will to meet competition by reducing rates below a basis found reasonable. In the words of the Commission: "It is the privilege of a carrier, in its own interest, to meet . . . competition, but it is not the privilege of a shipper to demand less than normal rates because of the existence of a competition which the carrier in its own behalf does not choose to meet."⁵⁵ In many other cases the Commission has pointed out that in the absence of some unlawful discrimination it will not undertake to require a carrier to meet competition.⁵⁶

If carriers may meet competition, but may not be compelled to do so, a third point seems to follow, namely, that rates dictated by competi-

⁵⁰ Pp. 191-196, *supra*.

⁵¹ E.g., *La Salle Paper Co. v. Michigan Central R. R. Co.*, 16 I.C.C. 149 (1909).

⁵² See p. 468, *supra*.

⁵³ These limitations are concisely stated in *Grain Rates from Minnesota & Wisconsin*, 68 I.C.C. 665, 672 (1922).

⁵⁴ See pp. 326-327, *supra*.

⁵⁵ *Cohen & Co. v. Mallory Steamship Co.*, 23 I.C.C. 374, 377 (1912). See also *Lindsay Bros. v. Baltimore & Ohio Southwestern R. R. Co.*, 16 I.C.C. 6, 8, (1909).

⁵⁶ E.g., *Iron Ore Rate Cases*, 41 I.C.C. 181, 194 (1916).

tion are not a good standard for comparison in determining the reasonableness of rates. The Commission has often held that rates compelled by competitive conditions are not a measure of the reasonableness of other rates.⁵⁷ ♦

We now come to consider a fourth and more difficult point relating to competition and the reasonableness of rates. May the Commission consider competitive conditions in determining what are maximum reasonable rates? Our previous discussion would imply that it could not. If it is for a carrier to determine whether or not it will meet competition, it would seem that the reasonableness of rates should be judged without reference to competitive conditions that may prevail. To make the rate necessary to meet competition a factor in prescribing maximum reasonable rates would be to require the carriers to meet competition whether they wished to or not. In fact, the Commission has said: "In fixing maximum reasonable rates, competition is not a factor which we may take into consideration."⁵⁸ Regardless of such assertions, however, the competitive situation is often considered by the Commission in fixing maximum reasonable rates, and the Commission admits this to be so. In the Western Trunk-Line class-rate case the carriers contended that the Commission was without authority to consider motor-truck competition in determining maximum reasonable rail rates. The Commission rejected this contention, holding that truck operations "merely present another element to be given consideration and due weight in arriving at appropriate distance scales."⁵⁹ In another case the Commission said: "On many occasions we have given carrier competition controlling weight in determining the level of reasonable all-rail rates."⁶⁰ In recent years the Commission has found justification for this policy in the provisions of Section 15a which require it to consider the effect of rates on the movement of traffic as a factor in prescribing rates. Thus if certain rates will not permit a commodity to move by rail because of the existence of lower rates by competing modes of transport—motor trucks, or water

⁵⁷ See *Boyle Commission Co. v. Chicago, Burlington & Quincy R. R. Co.*, 128 I.C.C. 51 (1927); *Fuller & Co. v. Pittsburgh, Chartiers & Youghiogheny R. R. Co.*, 17 I.C.C. 594 (1910); *Chicago Mica Co. v. Chicago & Eastern Illinois Ry. Co.*, 142 I.C.C. 286 (1928). But see *Columbia Paper Co. v. Norfolk Western Ry. Co.*, 225 I.C.C. 630 (1938), and *Sugar from Gulf Coast Port Groups to Northern Points*, 220 I.C.C. 623 (1937).

⁵⁸ *Southern Class Rate Investigation*, 100 I.C.C. 513, 611 (1925). See also *Wrought Pipe & Fittings*, 234 I.C.C. 347, 402 (1939); *Bull Steamship Line v. Abilene & Southern Ry. Co.*, 251 I.C.C. 475, 480 (1942).

⁵⁹ *Western Trunk-Line Class Rates*, 204 I.C.C. 595, 658 (1934).

⁶⁰ *Sugar from Gulf Coast Port Groups to Northern Points*, 220 I.C.C. 623, 642 (1937).

carriers, for instance—the Commission may feel compelled to prescribe rates that will permit the traffic to move.⁶¹

Were it not for the provisions of Section 15a requiring the Commission to consider the effect of rates on the movement of traffic, the legality of considering competition as a factor in setting maximum reasonable rates would be questionable. In *Baltimore & Ohio R. R. Co. v. United States*,⁶² Circuit Judge Hand noted that certain reduced rates prescribed by the Commission on sugar were made on the theory that a reduction was necessary if the traffic was to move all-rail in competition with barge-rail and barge-truck routes. The court said:

Perhaps, the power does in fact exist to make competition control in a proper instance; if it does, it is a corollary of section 15a (2), as amended, which directs the Commission to consider whether rates will move the traffic, and the carriers' need of enough revenue to provide adequate service. In the exercise of that power possibly a rate may be lawfully reduced below what would otherwise be inherently reasonable, when the reduction results in a substantial profit which will strengthen the general resources of the carrier and so enable it to render better and cheaper public service.⁶³

Failure of the Commission to make adequate findings that the carriers would gain substantially from the reduced rates was one of the circumstances which led the court to set aside the Commission's order in this proceeding.

We must conclude that the Interstate Commerce Commission has in recent years found rates unreasonable which would not have been found unreasonable had it not been for some competitive situation which required low rates if the traffic was to move. This action of the Commission raises the question of what is a sound policy when prescribing rates for competing modes of transport, a problem to be considered in a later chapter.⁶⁴ It also raises the question of the extent to which railroads can be required to reduce rates to meet market competition, a point which will be considered shortly.

COMMERCIAL NECESSITIES OF SHIPPERS

Almost any rate structure results in excluding would-be producers from a market, particularly if they suffer from some disadvantage of location such as greater distance from market or high cost of produc-

⁶¹ See *Fresh Sea Food from and to the South*, 210 I.C.C. 605, 613 (1935); *Sugar from Gulf Coast Port Groups to Northern Points*, 220 I.C.C. 623, 643 (1937).

⁶² 22 F. Supp. 534 (1937).

⁶³ *Ibid.*, p. 536.

⁶⁴ Chapter XXXIV.

tion. It is important to know whether the commercial necessities of a shipper, group of shippers, or of a locality, can be invoked in an attempt to compel a carrier to reduce its rates. In general, the answer is in the negative. A carrier may voluntarily reduce its rates below a normal level to enable shippers to reach a particular market but it cannot be forced to do so by regulatory authorities. This question is constantly cropping up in cases before the Commission. The Commission has frequently said that it cannot measure the reasonableness of rates "by the commercial necessities of the shipper."⁶⁵ The same thought is expressed even more clearly where the Commission has said: "It is not the province of this Commission to prescribe rates to enable shippers to overcome their natural disadvantages of location."⁶⁶ To hold otherwise "would lead to the conclusion that the differential burdens of production arising from natural disadvantages, distance from market, and other economic difficulties of all communities and industries should be neutralized and absorbed by the carriers which serve them."⁶⁷ If the Interstate Commerce Commission were required to adjust rates so as to give rival producers and producing areas a share of the market, it would be making the Commission a sort of economic dictator and would at once precipitate it in the midst of bitter sectional strife. This would embroil the Commission in political controversy and eventually destroy its effectiveness. "We have neither the inclination, the wisdom, nor the power," said the Commission, "to make or regulate rates for the purpose of determining whether goods shall be bought or sold, produced, manufactured, or consumed in one section or locality, or by one set of persons or another. Such has been the settled policy of the Commission from its creation in 1887 to the present day. We have other well-recognized standards by which the lawfulness of rates have been and are tested, and these standards concern themselves with transportation characteristics. When the standards are applied, the necessary and immediate effect may be to interject into an existing commercial situation new factors, important to those who produce or distribute, buy, or sell, and to their competitors;

⁶⁵ E.g., in *Green v. Alabama & Vicksburg Ry. Co.*, 43 I.C.C. 662, 676 (1917); *Peninsular Portland Cement Co. v. Director General*, 73 I.C.C. 542, 544 (1922).

⁶⁶ *National Refining Co. v. Missouri Pacific Ry. Co.*, 24 I.C.C. 315, 317 (1912). See also *East St. Louis Cotton Oil Co. v. St. Louis & San Francisco R. R. Co.*, 20 I.C.C. 37, 41 (1910); *Baltimore Chamber of Commerce v. Baltimore & Ohio R. R. Co.*, 22 I.C.C. 596, 603 (1912).

⁶⁷ *Railroad Commissioners of Montana v. Butte, Anaconda & Pacific Ry. Co.*, 31 I.C.C. 641, 644 (1914).

but such result is neither the cause nor end which has motivated our action."⁶⁸

In spite of these pronouncements of the Commission, decisions may be found in which it appears that the Commission has required a reduction of rates in order that certain groups of producers could reach common markets in competition with those enjoying lower freight rates, even though the rates found unreasonable were not high if strictly transportation conditions were considered.⁶⁹ In some of these cases the Commission has justified its action by pointing out that Section 15a requires it to consider the effect of rates on the movement of traffic.⁷⁰ Where market competition is involved, there may be a conflict between the doctrine that the commercial necessities of shippers are not a factor to be considered in prescribing maximum reasonable rates and the doctrine that the effect of rates on the movement of traffic should be considered. As Commissioner Eastman observed in his dissenting opinion in the so-called Southern Governors' Case: "Where market competition exists, no doubt a reduction in rates for the benefit of one competitor will normally promote the movement of his traffic," but he went on to say: "I do not believe that we are justified in requiring reductions in rates on this account in disregard of transportation conditions and costs."⁷¹

The principle that the effect of rates on the movement of traffic should be considered in determining the reasonableness of rates should not be permitted to destroy or weaken the principle that the reasonableness of rates should not depend on the commercial necessities of shippers. Once the principle is established that low rates may be required in order to meet market competition, there is no end to the adjustments in rates that may be required to put producers in common markets. The result would be an enormous amount of wasteful transportation.

One order of the Commission was set aside by the courts on the

⁶⁸ *Lake Cargo Coal from Kentucky, Tennessee, etc.*, 139 I.C.C. 367, 391 (1928).

⁶⁹ See dissenting opinion of Commissioner Meyer in *Coke from Alabama & Tennessee to Central Territory*, 215 I.C.C. 384, 387-388 (1936); also Commissioner Miller's dissent in *Sugar from Gulf Coast Port Groups to Northern Points*, 220 I.C.C. 623, 644-645 (1937); and Commissioner Eastman's dissent in *State of Alabama v. New York Central R. R. Co.*, 235 I.C.C. 255, 333-347 (1939).

⁷⁰ See *Sugar from Gulf Coast Port Groups to Northern Points*, 220 I.C.C. 623, 643 (1937); *Commonwealth of Kentucky v. Illinois Central R. R. Co.*, 253 I.C.C. 779, 787 (1942).

⁷¹ 235 I.C.C. 255, 346 (1939).

ground that the Commission had required a reduction in rates in order to permit certain groups of producers to compete in a particular market."⁷² The Hoch-Smith Resolution, with its injunction to consider the conditions of prosperity and depression and to adjust rates with a view to a "natural and proper" development of the country, may seem to require the Commission to temper rates to the commercial necessities of shippers and localities. But the pronouncement of a United States district court in the Anchor Coal case holds to the contrary. "Congress certainly did not intend by this language," said the court, "to create in the Commission an economic dictatorship over the various sections of the country, with power to kill or make alive."⁷³ The ruling of the United States Supreme Court in the Ann Arbor Case,⁷⁴ to the effect that the Hoch-Smith Resolution did not change existing law or render a rate unreasonable that was reasonable before its enactment, also points to the conclusion that the Resolution does not give the Commission power to adjust rates according to the commercial needs of shippers and localities.

RATES TO OFFSET LOCATIONAL ADVANTAGES

The Commission has denied the carriers the right to maintain high rates to offset the natural advantages of location of particular shippers or communities. "It has never been the view of the Commission that the prosperity of a shipper, a locality, or a state was a reasonable excuse for the imposition of rates conditioned on such prosperity."⁷⁵ Although carriers may sometimes maintain less than normal rates to offset disadvantages of location, they may not maintain rates to or from a given point on a higher level than is reasonable "in order to prevent one community from competing with another."⁷⁶

PUBLIC WELFARE

In the last chapter we found that considerations of social welfare sometimes affect decisions regarding the reasonableness of rates on particular commodities. In determining the reasonableness of rates on particular hauls the same thing is true. But here again it is probably true that the Commission is on uncertain ground and gives little weight

⁷² *Anchor Coal Co. v. United States*, 25 F. (2d) 462 (1928).

⁷³ *Ibid.*, p. 474.

⁷⁴ 281 U.S. 658 (1930).

⁷⁵ *Investigation of Advance in Rates on Grain*, 21 I.C.C. 22, 35 (1911).

⁷⁶ *Indianapolis Freight Bureau v. Cleveland, Chicago, Cincinnati & St. Louis Ry. Co.*, 26 I.C.C. 53, 58-59 (1913).

to such factors. Yet the Commission has spoken approvingly of group rates on the theory that they promote competition,⁷⁷ and in other cases it has recognized that the group rate principle, if carried too far, encourages unnecessary and wasteful transportation and hence may not always be in the public interest.⁷⁸ Comments creep into many of the Commission's reports which indicate that social considerations may influence decisions, but usually they are given little weight.

SELECTED REFERENCES

Literature on the subject matter of this chapter is not very extensive. The best general discussions are M. B. Hammond, *Railway Rate Theories of the Interstate Commerce Commission* (Cambridge, Harvard University Press, 1911), pp. 70-169; and W. T. Jackman, *Economics of Transportation* (Chicago, A. W. Shaw Co., 1926), chs. VI and VII. There is some pertinent matter in Edgar Watkins, *Watkins on Shippers and Carriers*, 4th ed. (Atlanta, The Harrison Co., 1930), parts of chapter III; and in J. H. Aldredge, *Rate Making for Common Carriers* (Atlanta, The Harrison Co., 1929). Many of the principles discussed in this chapter are considered by I. L. Sharfman in *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), pp. 538-693, although his discussion treats also of cases arising under the undue preference and prejudice provisions of the law.

⁷⁷ *In re Transportation of Wool, Hides, and Pelts*, 23 I.C.C. 151, 164 (1912).

⁷⁸ *Wisconsin & Arkansas Lumber Co. v. St. Louis, Iron Mountain & Southern Ry. Co.*, 33 I.C.C. 33, 37 (1915).

CHAPTER XX

PERSONAL DISCRIMINATION

PERSONAL discrimination, as that term is used in connection with common carriers, is the practice of charging different persons different rates for substantially the same service, or giving more or less service to one shipper than to another for the same rate. In other words, it is treating shippers unequally in the matter of rates or service.

REASONS FOR DISCRIMINATING

Personal discrimination is often the result of competition in an industry which is characterized by a large element of fixed or overhead costs. The carrier can afford to make a concession to a particular shipper if it thereby obtains traffic that would otherwise move over the lines of a competing carrier. This is because the expenses of the railroad are largely constant and will be increased but little by the additional traffic. What the carrier receives as compensation for carrying the traffic will be considered as "velvet." Competition, then, provides the motive for personal discrimination, and the peculiar nature of railroad expenses explains how wide the deviations from the normal rate may go in the effort to obtain traffic.

So common was the practice of personal discrimination before 1887 that it was sometimes said that only the unsophisticated paid the published rate. The rates published in the tariffs were but points of departure from which to begin the process of bargaining for special rates. It was not until the public became aroused over the evils of discrimination that legislation was enacted to put a stop to it. The Act of 1887 had this object definitely in view, but not until the law had been strengthened in many ways was the evil brought under control.

OBJECTIONS TO PERSONAL DISCRIMINATION

Personal discrimination is objectionable for a number of reasons. In the first place it is inconsistent with the democratic ideal of a society composed of individuals with equal rights and privileges. The courts have frequently referred to railroads as public highways. If they are public, each citizen should have equal rights with every other citizen

in their use. Former Commissioner Knapp justified the strict rule against personal discrimination in this manner: "The railroads are engaged in a public service, and that service should be impartially performed. They are . . . the purveyors of a public privilege which all are entitled to enjoy on the same terms. They should not be permitted to make differences between individuals on account of their position, their influence or the magnitude of their business. Neither official station, personal prominence nor patronage of unusual volume furnishes any just or defensible ground for giving one man cheaper conveyance than another."¹ The same reason for enforcing the rule of equal treatment was used by a Federal court in 1883. "The defendant is a common carrier by rail. Its road, though owned by the corporation, was nevertheless constructed for public uses, and is, in a qualified sense, a public highway. Hence everybody constituting a part of the public, is entitled to an equal and impartial participation in the use of the facilities it is capable of affording."²

Personal discrimination is also objectionable because it destroys equality of opportunity in business. Margins of profit are so small in many lines of manufacture and trade that a slight discrimination in freight rates may destroy one man's business and build up that of another. Businessmen object to a practice which places the success or failure of their business at the mercy of a railroad official.

From a social point of view there is another objection to personal discrimination. It destroys the advantages which are supposed to accrue from an industrial society founded upon free enterprise and free competition. Success in business, we have just noted, will come to depend upon one's success in obtaining concessions from a railroad if personal discrimination is allowed. This means that success in business will not depend upon wise, efficient, and economical management. The inefficient and the high-cost producers may be the ones who obtain the special favors, while the efficient and the low-cost producers may be the ones forced out of business. The advantages of the competitive system are thereby lost, and goods are not produced under the most favorable conditions.

Another danger lurking in personal discrimination is the danger of monopoly. The favored industries are able to destroy their competitors

¹ "Government Regulation of Railroad Rates," 51 *Albany Law Journal* 151, 151-152 (1895).

² *Hays & Co. v. Pennsylvania Co.*, 22 *American Law Register* (n. s.) 39, 40 (1883).

and to establish a monopoly in their respective lines of business. Some of the larger "trusts" in the United States obtained their monopoly position partly through favored treatment from railroad companies. The Commissioner of Corporations, in 1907, said of the oil trust: ". . . it would be hardly too strong a statement to say that the railroad rebate was the cornerstone of the success of the Standard Oil combination."³ A public which is alert to protect itself from the exactions of monopolies will endeavor to remove one of the important aids to their development.

Lastly, personal discrimination is a losing game for the railways themselves. One road may gain by the practice only if others adhere to the regular rates or grant smaller rebates. But one railroad can play the game as well as another, and when they are practically all engaged in the practice no railroad gains and all lose. The railroads have very often found themselves at the mercy of the corporations which they first aided by rebates. Many times these corporations were able to exact larger and larger concessions from the railroads by threat of diverting traffic to other lines, or as in the case of the Standard Oil Company, by threatening to build pipe lines, or other means of transportation of their own. This is why the railroads were themselves anxious to stop rebating, and why they sponsored the enactment of the Elkins Act in 1903 which was wholly concerned with personal discrimination.⁴ The enactment of legislation which checked the evil of personal discrimination added millions of dollars to the revenues of the carriers.

FORMS OF PERSONAL DISCRIMINATION

Personal discrimination may take so many different forms that it is impossible to enumerate them all. As one of the Federal courts expressed it, ". . . discriminations and rebates have ever been sought to be hidden under the most subtle disguises."⁵ This has been particularly true since legislation has stopped the simpler and more obvious forms. An enumeration, however, of some of the more common forms of personal discrimination will throw light on the extent of these practices and the difficulty encountered in eliminating them.

Departure from the Published Rate.—The simplest form of personal discrimination is the granting of a concession from the published rate in favor of a particular shipper. It should not be understood, how-

³ *Report on the Petroleum Industry* (1907), p. 55. For another statement to the same effect, see *ibid.*, p. 66.

⁴ Pp. 221-222, *supra*.

⁵ *Vandalia Railroad Co. v. United States*, 226 Fed. 713, 716 (1915).

ever, that all departures from the published rates are discriminations. If there is but one shipper of a certain article at a given point, a departure from the published rate is not a discrimination. There is no one to be discriminated against. If several shippers receive the same concession, there is no discrimination since all are treated alike. But if one shipper receives a concession and others receive none, or receive a lesser concession, then there is discrimination. In the effort to prevent discrimination all departures from the published rate are prohibited.

Rebates.—One step removed from the simple concession is the rebate. A rebate is a refund of a portion of the rate paid in the first instance. The rebate conceals the fact that a concession has been granted since the bill of lading and other shipping papers carry the regular charges.

Free Passes.—A common form of discrimination in the past was the granting of free passes to shippers whom the company wished to favor. The free pass entitles the holder to transportation on regular passenger trains. The Hepburn Act of 1906 contained specific provisions designed to stop this form of discrimination, but it was not wholly successful. In 1913 the Interstate Commerce Commission made an investigation of the situation then existing in Colorado where free passes were being given very extensively.⁶ The carriers contended that the passes were not in violation of the law since they were for intrastate journeys, but they were granted to interstate shippers and so fell under the prohibitions of the statute. The carriers were losing large amounts of revenue by the practice and expressed a desire to discontinue it, but had been unable to do so for fear of offending shippers.

Underclassification.—A common form of discrimination results from underclassification. If a shipper, with the connivance of the carrier, misrepresents the nature of shipments and thereby obtains a lower rate than should be charged, the practice is equivalent to direct rebating. In 1898 the westbound inspection bureau of the Trunk-Line railroads found 270,000 misrepresentations by shippers of the contents of packages shipped by rail.⁷ These were not all cases of wilful favoritism. It is only when it is done with the knowledge and consent of the railroad or its agents that there is favoritism on the part of the carrier. Underclassification without the consent of the carrier, however, is fully as objectionable, not only because it deprives the carrier of its

⁶ *The Colorado Free Pass Investigation*, 26 I.C.C. 491.

⁷ *Report of the Industrial Commission* (1900), vol. IV, p. 675.

rightful revenue but because it gives the dishonest shipper an advantage over the honest one.

False Billing.—Another form of discrimination results from permitting the shipper to misrepresent the weight of a shipment, or permitting him to represent a shipment as entitled to a low export rate, or proportional rate,⁸ when it is not so entitled. Sometimes shipments are billed to a false destination but actually move to a different one, where a higher rate should be charged. False billing takes many forms but the characteristic feature is some misrepresentation which enables the shipper to get a rate to which he is not entitled.⁹

Sudden Changes in Published Rates.—One form of personal discrimination which conformed to the letter of the law was to change rates without notice, or on very short notice. A few favored shippers would be informed of the change beforehand, and would therefore be able to take advantage of it, while their less favored competitors could not. The terms "midnight tariffs" and "flying tariffs" have been used to describe this practice. The device was not stopped by requiring thirty days' notice of changes in rates. The carrier could file notice of a reduction in rates and at the same time, or shortly thereafter, file notice of the restoration of the old rates. Although notice of the reduction had been properly made, it was likely that only the favored shippers would be aware of the reduction, or of the subsequent increase, and hence would be in a position to take advantage of the temporary reduction.¹⁰ The power of the Commission to suspend proposed changes in rates enables it to prevent manipulations of this sort.

Excessive Payments for Supplies.—Sometimes favoritism is practiced by excessive payments for supplies purchased by the railroad from industries which it serves. The Standard Oil Company received favors in this way. The Commissioner of Corporations said in 1907 that the railroads in the United States paid \$2,000,000 per year more for oil than the fair market price because of purchases from the Standard Oil Company.¹¹ Other instances of the same type of favoritism have been brought to light by the Interstate Commerce Commission.¹²

⁸ See p. 186, note 86, *supra*, for one use of "proportional rates." See also ch. XXXIV.

⁹ For an interesting form of false billing, see Annual Report of the Commission for 1932, pp. 49-50.

¹⁰ For an example, see Daggett, S. R., *Principles of Inland Transportation* (New York, Harper's, 1928), pp. 321-322.

¹¹ *Report on the Petroleum Industry* (1907), Pt. II, pp. 66-67.

¹² *Reciprocity in Purchasing and Routing*, 188 I.C.C. 417 (1932).

False Claims.—A form of discrimination difficult to detect is the payment of excessive claims for loss and damage. Instances of this practice are constantly appearing.¹³ This form of personal discrimination has been particularly common in the fruit and vegetable trade.¹⁴

Low Rentals for Railroad Property Leased to Shippers.—Discrimination has been practiced by the leasing of carrier-owned land for industrial sites or other purposes at extremely low or nominal rentals, accompanied by an agreement on the part of the shipper to route traffic over the lines of the owning railroads.¹⁵ Discrimination has taken the form of leasing warehouse space to shippers for storage purposes at rates which do not adequately compensate the carriers for the facilities provided.¹⁶

Extension of Credit to Preferred Shippers.—The extension of credit to favored shippers while requiring other shippers to pay freight charges in cash is another form of favoritism that has been practiced.¹⁷

Allowances for Services or Property Furnished by Shipper.—Discrimination may arise from the payment of allowances to shippers for services performed or for property furnished. If a shipper performs some service in connection with shipments that is ordinarily performed by the railroad company, a payment by the railroad to the shipper is wholly proper. Similarly, if the shipper furnishes cars or some other facility ordinarily furnished by carriers, an allowance to the shipper is not wrong. But if the allowance paid for the service or property is excessive, the effect is the same as if a rebate were paid. To avoid discrimination the payment should not be more than the sum necessary to defray the costs of furnishing the service.

This type of discrimination has frequently arisen in connection with the use of privately owned freight cars. Many special types of freight cars such as tank cars and refrigerator cars are furnished by shippers, or by private-car companies which are controlled by the industries making use of the equipment.¹⁸ Owners of refrigerator cars sometimes

¹³ For examples, see Annual Report of the Commission for 1916, pp. 28-29.

¹⁴ For evidence of this practice see Federal Trade Commission, *Fruits and Vegetables—Agricultural Income Inquiry*, 75th Cong., 1st sess., Senate Doc. No. 17 (1937).

¹⁵ *Leases and Grants by Carriers to Shippers*, 73 I.C.C. 671 (1922).

¹⁶ *Warehousing & Storage of Property by Carriers at the Port of New York*, 198 I.C.C. 134 (1933), 216 I.C.C. 291 (1936), 220 I.C.C. 102 (1937); *Baltimore & Ohio R. R. Co. v. United States*, 305 U.S. 507 (1939).

¹⁷ *United States v. Hocking Valley R. R. Co.*, 210 Fed. 735 (1914), *Mosbussuck Valley Railroad Case*, 37 I.C.C. 566 (1916).

¹⁸ For an early example, see *Shamberg v. Delaware, Lackawanna & Western R. R. Co.*, 4 I.C.C. 630 (1891).

received such generous allowances that the entire cost of the cars plus repairs and expenses of maintenance was repaid in two years.¹⁹ This form of discrimination has been brought under control by vesting the Interstate Commerce Commission with power to determine the proper allowances which private-car owners should receive.²⁰ The task of prescribing such allowances is difficult, and some writers believe that discrimination of this type can never be removed completely as long as private cars remain in existence.²¹

Allowances to industrial railroads have also been a fruitful source of discrimination. An industrial railroad is one which is owned or controlled by an industry. It has been a very common practice for large manufacturing concerns, like steel companies, to turn over the operation of the many miles of railroad track in and about their plants to a newly organized company which they control. Lumber companies having lines of railroad connecting their mills with trunk-line railroads often organize their transportation system in the same way. The industrial railroad then becomes entitled to a switching charge for the service it performs, or for a share in a through rate. Here there is no discrimination if the allowance or division of a joint rate is a proper one. But it is difficult to fix a just remuneration for the services of industrial railroads, and any excess allowance constitutes, in effect, a rebate to the industry owning the railroad. Two instances of gross favoritism resulting from industrial railroads were described by the Interstate Commerce Commission in 1904. The Illinois Northern Railroad Company, owned by the International Harvester Company, received a division of \$12 per car on certain shipments when a reasonable allowance for the service would not have exceeded \$3.50. A similar situation was found to exist because of allowances to the Chicago, Lake Shore & Eastern Railroad Company, owned by the United States Steel Corporation.²²

In the Tap Line Case the Interstate Commerce Commission held that certain lumber tap lines were plant facilities and not common carriers

¹⁹ Ripley, W. Z., *Railroads: Rates and Regulation* (New York, Longmans, 1912), pp. 193-194.

²⁰ Leading cases involving allowances for private cars are *In the Matter of Private Cars*, 50 I.C.C. 652 (1918); *Use of Privately Owned Refrigerator Cars*, 201 I.C.C. 323 (1934); *Allowances for Privately Owned Tank Cars*, 258 I.C.C. 371 (1944). See also *General American Tank Car Corp. v. El Dorado Terminal Co.*, 308 U.S. 422 (1940).

²¹ For a general discussion of the private car problem, see Weld, L. D. H., *Private Freight Cars and American Railways* (1908).

²² *Re Divisions of Joint Rates*, 10 I.C.C. 385 (1904). See also *Transportation of Salt from Hutchinson*, 10 I.C.C. 1 (1904), and *The Industrial Railways Case*, 29 I.C.C. 212 (1924) and 34 I.C.C. 596 (1915).

and hence were not entitled to allowances out of a through rate.²³ The United States Supreme Court annulled the Commission's order on the ground that the tap lines were common carriers and entitled to compensation.²⁴ The Court said, however, that it was not only within the power of the Commission, but its duty, to see that the divisions received by the tap lines were not such as to result in rebates to the industries which owned them. The Commission thereupon reopened the proceeding and attempted to deal with the problem by prescribing the divisions which the tap lines might receive out of through rates.²⁵ This, however, was not an entirely satisfactory manner of dealing with the problem. The Commission, at the present time, looks unfavorably upon industry-controlled railroads. In the exercise of its power to control the construction of new lines of railroad the Commission has sometimes disapproved of the construction of lines by companies affiliated with the industries to be served.²⁶

A closely related form of discrimination is the payment of allowances to industries for performing switching and spotting services for the railroads serving their plants. The Commission has dealt with this problem by defining the service that the carrier may properly perform at terminals and for which it may pay allowances when the service is performed by industries.²⁷

DISCRIMINATION IN SERVICE

Discrimination, as we have already noted, may result from inequality in service. If a carrier grants privileges to one shipper that he will not grant to another shipper under like circumstances, or if the carrier performs a service for one shipper that he will not for another, personal discrimination results.

DISCRIMINATORY TARIFF PROVISIONS

Personal discrimination does not always arise from rebating or from the more subtle forms of payments to shippers. Sometimes the provisions

²³ 23 I.C.C. 277 (1912).

²⁴ 234 U.S. 1 (1914).

²⁵ 31 I.C.C. 490 (1914).

²⁶ See *Lake Decatur & Eastern R. R. Co. Proposed Acquisition*, 175 I.C.C. 405 (1931), and *Tittabawassee R. R. Co. Proposed Construction*, 189 I.C.C. 563 (1933).

²⁷ *Propriety of Operating Practices—Terminal Services*, 209 I.C.C. 11 (1935). The Commission's action has been upheld by the courts. *United States v. American Sheet & Tin Plate Co.*, 301 U.S. 402 (1937); *United States v. Wabash R. R. Co.*, 321 U.S. 403 (1944).

of a tariff or classification may be so framed that they favor one shipper or class of shippers and discriminate against others. Rates that have this effect are unlawful. The Interstate Commerce Commission and the courts have frequently condemned rates of this sort.

An arrangement whereby lower rates are granted to shippers offering a carrier large quantities of freight is a discrimination. Such arrangements were held unlawful before the enactment of the Interstate Commerce Act.²⁸ The practice has also been held contrary to the provisions of Section 2 of the Interstate Commerce Act. "The fact that one man is a large shipper and another a small shipper does not entitle the carrier to make a difference in the rate, if the property carried in each case is of the same class, and the distance and route is the same."²⁹ In a very early case the Commission condemned the practice of allowing a discount in the rates on coal to consignees who received not less than 30,000 tons of coal within a year.³⁰ Reduced rates on shipments of books and drugs which applied only when the consignee received 150,000 pounds or more of freight in the three preceding calendar months were found discriminatory in recent times.³¹ Discounts or reduced rates to large shippers are not justified, since the cost of transporting a shipment of a given size is not reduced by the fact that over a period of time the shipper furnishes the carrier with more of such shipments than another does.

Discriminations based on the size of a shipment may or may not be unjustly discriminatory. Higher rates on less-than-carloads than on carloads were early approved by the Commission in spite of the contention that they favored large shippers and worked to the disadvantage of small shippers.³² Approval of lower carload rates has been based partly on recognized differences in costs of transportation, and partly on the fact that the carload is a small enough unit to be used by fairly small shippers. Although the Commission early approved of lower carload rates, it refused for a long time to require them. As late as 1910 the Commission said that it had never required the establishment of

²⁸ *Burlington, Cedar Rapids & Northern Ry. Co. v. Northwestern Fuel Co.*, 31 Fed. 652 (1887).

²⁹ *United States v. Tozer*, 39 Fed. 369, 371-372 (1889).

³⁰ *Providence Coal Co. v. Providence & Worcester R. R. Co.*, 1 I.C.C. 107 (1887).

³¹ *Books, Drugs, & Cotton Goods. New York to Chicago*, 256 I.C.C. 85 (1943). See also *Forwarder Rates Conditioned upon Aggregates of Tonnage*, 258 I.C.C. 635 (1944).

³² *Thurber v. New York Central & Hudson River R. R. Co.*, 3 I.C.C. 473 (1890).

carload rates.³³ In recent years, however, the Commission has often found any-quantity rates unreasonable when applied on carloads, thus in effect requiring the establishment of lower carload rates.³⁴

If lower rates on carloads than on less-carloads are justified on the basis of lower costs of providing the service, it would seem that lower rates on trainload lots, or multiple-car lots, than on single carloads could be justified in the same way. For many years, however, the Commission considered such rates discriminatory, largely because they could be used by only a few shippers.³⁵ Loss of traffic to water carriers and to pipe lines in recent years has given rise to the suggestion that railroads establish "cargo" rates to recover some of this traffic.³⁶ In 1939 the Interstate Commerce Commission allowed multiple-carload rates to go into effect on blackstrap molasses in tank cars from New Orleans, Louisiana, to Peoria, Illinois. The rates authorized were 15 cents per hundred pounds on a minimum of 1,800 tons, the equivalent of about 38 cars, as compared with a rate of 17.5 cents in carload lots.³⁷ Multiple-car rates have been established in a few other instances.³⁸ The Commission, however, has refused to require their establishment.³⁹

Rates dependent upon the use to which a commodity is put may also result in discrimination between shippers, and have been condemned for this reason.⁴⁰ The practice of differentiating between different shipments or kinds of articles of the same class on the basis of differing weight-densities or loading characteristics has sometimes been condemned because of its tendency to favor particular shippers.⁴¹ The hesitancy of the Commission in approving alternative rates with differ-

³³ *Commercial Club of Omaha v. Baltimore & Ohio R. R. Co.*, 19 I.C.C. 397, 401.

³⁴ E.g., *Auto Vehicle Co. v. Chicago, Milwaukee & St. Paul Ry. Co.*, 21 I.C.C. 286 (1911); *In re Transportation of Wool, Hides & Pelts*, 23 I.C.C. 151, 168-169 (1912).

³⁵ *Paine Bros. & Co. v. Lehigh Valley R. R. Co.*, 7 I.C.C. 218 (1897); *Woodward-Bennett Co. v. San Pedro, Los Angeles & Salt Lake R. R. Co.*, 29 I.C.C. 664 (1914); *Miller & Lux, Inc. v. Southern Pacific Co.*, 41 I.C.C. 617 (1916).

³⁶ Federal Coordinator of Transportation, *Freight Traffic Report*, vol. II, pp. 91-93; Wilson, G. Lloyd, "Are 'Trainload Lot' Rates Feasible?" 99 *Railway Age* 307 (1935).

³⁷ *Molasses from New Orleans, La., to Peoria & Pekin, Ill.*, 235 I.C.C. 485 (1939).

³⁸ These are listed in 243 I.C.C. 589, 646 (1941).

³⁹ *Petroleum Rail Shippers' Assoc. v. Alton & Southern R. R. Co.*, 243 I.C.C. 589 (1941).

⁴⁰ *Capital City Gas Co. v. Central Vermont Ry. Co.*, 11 I.C.C. 104 (1905); *In the Matter of Restricted Rates*, 20 I.C.C. 426 (1911); *Interstate Commerce Commission v. Baltimore & Ohio R. R. Co.*, 225 U.S. 326 (1912).

⁴¹ See pp. 441-442, *supra*.

ent minimum carload weights is to be explained by the tendency of such rates to favor large shippers.⁴²

LEGISLATION AGAINST PERSONAL DISCRIMINATION

A common-law rule against unequal treatment of shippers existed in the United States as early as 1863,⁴³ but statutory provisions designed to deal with the problem have occupied a prominent place in regulatory legislation. It is desirable to summarize the more important provisions of the Interstate Commerce Act and related acts which have been aimed at this abuse.

General Prohibitions of Discrimination.—Sections 2 and 3 of the Interstate Commerce Act contain broad prohibitions designed to cover all forms of personal favoritism practiced by railroad companies. Section 2 forbids railroads to exact a greater or less compensation from one person than from another for a like and contemporaneous service.⁴⁴ Section 3 prohibits undue preference or advantage, and any undue prejudice or disadvantage.⁴⁵

Publication of Rates Required.—Section 6 of the Interstate Commerce Act requires all rates and fares to be filed with the Commission, and obligates the carrier to keep open to public inspection schedules showing its rates and fares. Publicity of rates and fares is the first essential in any attempt to enforce uniformity of charges for the same service. So strict is the law that it prohibits a railroad from transporting property for which no rates are published.⁴⁶

Notification of Changes in Rates and Fares.—No changes may be made in rates and fares except upon thirty days' notice to the Commission and to the public. This provision, coupled with the power to suspend proposed changes in rates, enables the Commission to prevent discrimination through sudden changes in rates for the benefit of preferred shippers.

⁴² *Lafayette Box Board & Paper Co. v. Akron, Canton & Youngstown Ry. Co.*, 101 I.C.C. 273 (1925); *Mathieson Alkali Works v. Louisville & Nashville R. R. Co.*, 153 I.C.C. 784 (1929); *Twin Coach Corp. v. Baltimore & Ohio R. R. Co.*, 177 I.C.C. 609 (1931). In some instances alternate rates with different carload minima have been approved or required. See cases cited in separate opinion of Commissioner Alldredge in *Iron & Steel to Iowa, Minnesota, Michigan, & Wisconsin*, 263 I.C.C. 361, 406-408 (1945).

⁴³ Kline, Benjamin M., "The Origin of the Rule Against Unjust Discrimination," 66 *University of Pennsylvania Law Review* 123 (1918).

⁴⁴ The language is more exactly quoted on p. 217, *supra*.

⁴⁵ See p. 217, *supra*.

⁴⁶ See *United States v. Illinois Terminal R. R. Co.*, 168 Fed. 546 (1909) where a fine of \$12,000 was imposed on the carrier for transporting several cars of glass bottles when no tariff provision covering the shipments was published.

Adherence to Published Rates Required.—Strict adherence to the published rates is required by Section 6 of the Interstate Commerce Act and by the Elkins Act. All deviations in the form of rebates or otherwise are forbidden. Section 6 provides that no carrier shall "charge or demand or collect or receive a greater or less or different compensation for such transportation . . . than the rates, fares, and charges which are specified in the tariff filed and in effect at the time." The phrase "different compensation" is to prevent the payment of charges in services or goods, the overvaluation of which might easily lead to discrimination. It has been held contrary to this section for a railroad company to purchase advertising space in a periodical at the regular price and pay for the same by selling transportation at the regular rate.⁴⁷ It has also been held a violation of Section 6 for a carrier to accept promissory notes of a shipper in settlement of freight charges.⁴⁸ Payments must be made in cash.⁴⁹ The law is very strict in requiring adherence to published rates even though no discrimination results from the departure. The published rate is the only legal rate. Even if there is a manifest error in the tariff, the published rate and that alone must be paid. In one case the Interstate Commerce Commission required adherence to a rate of 1 cent per hundred pounds when a rate of 19 cents was clearly intended.⁵⁰ To hold otherwise would open the door to discrimination by making it possible for the carriers to make convenient "errors" in their tariffs. Not only must the regular rate be paid on each shipment, but payments by a railroad company of lump sums to shippers in return for a promise to locate their plants on, and route traffic over, its lines are held to be departures from the published rate.⁵¹ Likewise, a loan of money to a shipper at less than the market rate by a railroad company or companies affiliated with it was held to be rebating.⁵² The strictness with which the law requires observance of the published rates is shown by cases in which the railroad is permitted to recover additional charges from a shipper who has paid the freight bill presented to him, and the railroad has later discovered an error in the calculation of the charges.⁵³ The carrier can collect in such instances even if it results in

⁴⁷ *Chicago, Indianapolis & Louisville Ry. Co. v. United States*, 219 U.S. 486 (1911).

⁴⁸ *United States v. Hocking Valley R. R. Co.*, 194 Fed. 234 (1911).

⁴⁹ Checks are held to be payments in cash, *Fullerton Lumber Co. v. Chicago, Milwaukee & St. Paul R. R. Co.*, 282 U.S. 520 (1931).

⁵⁰ *Ryan Co. v. Missouri Pacific R. R. Co.*, 177 I.C.C. 348 (1931).

⁵¹ See *United States v. Union Stock Yard & Transit Co.*, 226 U.S. 286 (1912).

⁵² *Vandalia R. R. Co. v. United States*, 226 Fed. 713 (1915).

⁵³ *Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co. v. Fink*, 250 U.S. 577 (1919).

loss to the shipper who may have sold the goods at a price that was based on cost plus the freight originally paid. The same rule applies when the shipper, relying upon a carrier's statement of a published rate, enters into a transaction for the purchase and sale of goods but later finds that owing to an erroneous statement of the applicable rate he must pay a higher rate than that on which his calculations were based.⁵⁴ To prevent misstatements of applicable rates the Mann-Elkins Act of 1910 provided that upon written request the railroads must furnish written statements of the rates applicable on described shipments. Failure to do this, or erroneous quotation of the rates, made them liable for a penalty of \$250 for each offense. These requirements were repealed, however, by the Transportation Act of 1940. The reason why erroneous quotation of a rate by the carrier does not relieve the shipper of the obligation to pay the correct rate is because the contrary rule would enable railroads to favor shippers by intentional misquotations of rates.

Anti-Pass Legislation.—The Interstate Commerce Act prohibits the granting of free passes except to certain specified classes of individuals,⁵⁵ a measure which is designed to stop this common form of discrimination.

Restrictions on Extension of Credit to Shippers.—Paragraph 2 of Section 3 of the Interstate Commerce Act is designed to prevent discrimination through the extension of credit to shippers by railroad companies. The section prohibits railroads from delivering shipments at destination until all transportation charges have been paid, except under such rules and regulations as the Commission may prescribe.⁵⁶

Obtaining Lower Rates by False Billing, Etc., Prohibited.—Section 10 of the Act provides penalties for shippers who obtain or attempt to obtain transportation at less than the published rates by false billing, false classification, false weighing, and other devices.

Solicitation of Rebates Unlawful.—The Elkins Act and Section 10 of the Interstate Commerce Act prohibit the solicitation of rebates and concessions or the offering of rebates or concessions by a carrier.

Commodities Clause.—The provisions of the Commodities Clause have elsewhere been described.⁵⁷ This clause, it will be recalled, pro-

⁵⁴ *A. J. Poor Grain Co. v. Chicago, Burlington & Quincy R. R. Co.*, 12 I.C.C. 418 (1907). See also *Texas & Pacific Ry. Co. v. Mugg*, 202 U.S. 242 (1906). *Pettibone v. Richardson*, 126 F. (2d) 969 (1942).

⁵⁵ More fully described, p. 225, *supra*.

⁵⁶ Regulations were prescribed in 1920—*Regulations for Payment of Rates and Charges*, 57 I.C.C. 591, and modified in 1931, 171 I.C.C. 268.

⁵⁷ Pp. 225-226, *supra*.

hibits railroad companies from transporting in interstate commerce commodities which they themselves have produced or which they own. The provision was designed to prevent the type of discrimination which is bound to develop if carriers are free to manufacture or deal in products which they transport. Discrimination resulting from such activities of railroad companies had been strongly condemned by the courts before the enactment of the Commodities Clause.⁵⁸ There have been a number of cases before the courts involving the interpretation and application of the Commodities Clause.⁵⁹

COMPETITION NOT A JUSTIFICATION OF UNEQUAL TREATMENT OF SHIPPERS

As the law is interpreted in the United States, competition does not justify unequal treatment of shippers. This was clearly brought out in the case of *Wight v. United States*, decided by the United States Supreme Court in 1897.⁶⁰ The circumstances of the case were as follows: Mr. F. H. Bruening was a wholesale dealer in beer in Pittsburgh, purchasing his beer in Cincinnati and shipping it by rail to Pittsburgh. His place of business had a siding connection with the Pittsburgh, Cincinnati & St. Louis Railroad, known as the Pan-handle. The Pan-handle could thus deliver shipments of beer at Mr. Bruening's warehouse. The Baltimore & Ohio Railroad also had lines from Cincinnati to Pittsburgh and wished to carry Mr. Bruening's beer. The rate by both roads was 15 cents per hundred pounds, but the Baltimore & Ohio could not deliver beer to Mr. Bruening's warehouse as there was no siding connection. In order to meet the competition of the Pan-handle the Baltimore & Ohio offered to truck the beer from its station to Bruening's warehouse. This was done, but later, after the railroad had found the cost of trucking the beer to be 3½ cents per hundred pounds, it arranged for Mr. Bruening to do the trucking in return for an allowance of 3½ cents from the published rate. Another beer dealer, Mr. Henry Wolf, also shipped beer from Cincinnati to Pittsburgh. He did not have a siding connection with either railroad. He asked for a rebate but was refused one, since he would have to truck his shipments regardless of the road over which they moved. Thus competition forced the Baltimore & Ohio

⁵⁸ *New York, New Haven & Hartford R. R. Co. v. Interstate Commerce Commission*, 200 U.S. 361 (1906).

⁵⁹ For comments on the leading cases before the Supreme Court see *Chesapeake & Ohio Ry. Co.*, 261 I.C.C. 655 (1946).

⁶⁰ 167 U.S. 512.

to give a rebate (or trucking service) in order to get Bruening's shipments, but did not force it to give a similar rebate to Mr. Wolf. It was contended by the railroad that since it was necessary for it to offer this inducement to Mr. Bruening and not necessary to make a like offer to Wolf, the traffic in the two situations was not handled "under substantially similar circumstances and conditions," and was therefore not in violation of Section 2 of the Interstate Commerce Act. But the Court held that competition did not justify unequal treatment of shippers, and that the phrase "under substantially similar circumstances and conditions" referred to the matter of carriage and did not include competition.⁶¹

The principle of the Wight case is interesting for two reasons. In the first place, although competition does not justify inequality of treatment under Section 2, it does, or may, justify unequal treatment of shippers under Section 3—the undue preference and prejudice section. Before the Long-and-Short-Haul Clause was amended in 1910 it also contained the phrase "under substantially similar circumstances and conditions," and competition was held by the courts to create a dissimilarity of circumstances such as to justify that form of discrimination.⁶² The second interesting feature of the Wight case is that a contrary rule is followed in England where a carrier is permitted, to some extent at least, to make allowances of the nature described in the Wight case, when competition makes it necessary for it to do so to retain traffic.⁶³

PERSONAL DISCRIMINATION TODAY

Personal discrimination is much less of a problem in the United States than it used to be. It is not to be assumed, however, that the practice has entirely disappeared. Here, as elsewhere, eternal vigilance is necessary. In an appendix to its annual reports the Interstate Commerce Commission always publishes a list of cases concluded in the Federal district courts during the year for violations of the Interstate Commerce Act and the Elkins Act. The list is usually a substantial one, and prominent among the offenses alleged are various forms of personal discrimination, such as failure to observe published tariffs or to assess proper charges, underbilling, filing of false claims, and the like. Relaxation of

⁶¹ For application of the principle to a different set of facts, see *Seaboard Air Line Ry. Co. v. United States*, 254 U.S. 57 (1920).

⁶² See p. 229, *supra*.

⁶³ See Daggett, *op. cit.*, pp. 326-328.

strict enforcement of the law would undoubtedly make personal discrimination a major evil once more.

SELECTED REFERENCES

General discussions of personal discrimination may be found in Eliot Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. VII; S. R. Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XIV; H. B. Vanderblue and K. F. Burgess, *Railroads—Rates, Service, Management* (New York, Macmillan, 1923), ch. VI; Truman C. Bigham, *Transportation, Principles and Problems* (New York, McGraw-Hill, 1946), ch. 14. Especially rich in illustrative material is W. Z. Ripley, *Railroads: Rates and Regulation* (New York, Longmans, 1916), ch. VI. There is also much illustrative material in Frank Parsons, *The Railways, the Trusts, and the People* (Philadelphia, C. F. Taylor, 1906), chs. 3 and 4; and by the same author, *The Heart of the Railroad Problem* (Boston, Little, Brown & Co., 1906). The Bureau of Corporation's *Report on the Transportation of Petroleum* (1906) describes fully the many ways that the Standard Oil Company profited from favoritism on the part of railway companies.

On the common-law status of personal discrimination there is an excellent article by B. M. Kline, "Origin of the Rule Against Unjust Discrimination," 66 *University of Pennsylvania Law Review* 123 (1918).

There is excellent and valuable case material on this subject which is well worth reading. See especially the following cases: *The Colorado Free Pass Investigation*, 26 I.C.C. 491 (1913); *The Industrial Railways Case*, 29 I.C.C. 212 (1914); *Wight v. United States*, 167 U.S. 512 (1897); *United States v. Tozer*, 39 Fed. 369 (1889); *Seaboard Air Line Ry. Co. v. United States*, 254 U.S. 57 (1920); *Vandalia R. R. Co. v. United States*, 226 Fed. 713 (1915); *New York, New Haven & Hartford R. R. Co. v. Interstate Commerce Commission*, 200 U.S. 361 (1906); *Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co. v. Fink*, 250 U.S. 577 (1919); *A. J. Poor Grain Co. v. Chicago, Burlington & Quincy Ry. Co.*, 12 I.C.C. 418 (1907), pp. 419-424; *Chicago, Indianapolis & Louisville Ry. Co. v. United States*, 219 U.S. 486 (1911); *United States v. Illinois Terminal R. R. Co.*, 168 Fed. 546 (1909); *United States v. Bunch*, 165 Fed. 736 (1908); *The Tap Line Case*, 23 I.C.C. 277 (1913), 234 U.S. 1 (1914); 31 I.C.C. 490 (1914); *United States v. American Sheet & Tin Plate Co.*, 301 U.S. 402 (1937); *Baltimore & Ohio R. R. Co. v. United States*, 305 U.S. 507 (1939); *Union Pacific R. R. Co. v. United States*, 313 U.S. 450 (1941); *General American Tank Car Corp. v. El Dorado Terminal Co.*, 308 U.S. 422 (1940).

There is an excellent analysis of cases arising under Section 2 of the Interstate Commerce Act in I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), pp. 370-413.

CHAPTER XXI

DISCRIMINATION BETWEEN PLACES AND COMMODITIES

THE previous chapter considered discrimination between persons. This chapter concerns discrimination between places and commodities by railroad companies. Cases involving these two forms of discrimination are brought under Section 3 of the Interstate Commerce Act. This section, as it was worded before 1940, made it unlawful for a railroad to give "any undue or unreasonable preference or advantage" to "any particular person, company, firm, corporation, association, locality, port, port district, gateway, transit point, or any particular description of traffic," or to subject any of the above to "undue or unreasonable prejudice or disadvantage."¹

The principles recognized in Section 3 cases are the same whether the case involves discrimination between places or discrimination between "particular descriptions of traffic." In the interests of clarity, however, it will be helpful to consider the two types of discrimination separately.

DISCRIMINATION BETWEEN PLACES

It has been said that the power to make freight rates is the power to turn a wilderness into a city, or a city into a wilderness.² The ability of individual producers or dealers to maintain their existence in a particular locality, and the ability of communities to retain their existence, may depend upon freight rate adjustments. This is why Section 3 with its prohibition of undue preference or advantage is of so great importance.³ The provisions of Section 3 are consistent with the general obligation of common carriers to treat all equally although there seems to have been no common-law rule against discrimination between places.⁴

¹ The words "port, port district, gateway, transit point" were added in 1935 (49 Stat. 607) following the decision of the Supreme Court in *Texas & Pacific Ry. Co. v. United States*, 289 U.S. 627 (1933).

² Beale and Wyman, *Railroad Rate Regulation*, 2d ed. (New York, Baker, Voorhis & Co., 1915), p. 657.

³ In this chapter we use the term "discrimination" as synonymous with "preference" or "prejudice," although the Commission in recent years has usually used the first term to cover violations of Section 2 and the latter terms to cover relationships attacked under Section 3.

⁴ *McGrew v. Missouri Pacific Ry. Co.*, 132 S.W. 1076, 1080 (1910). See also Beale and Wyman, *op. cit.*, pp. 657-658.

From a strictly economic point of view, discrimination between places is unequal treatment of two or more localities in the matter of rates when the inequality cannot be justified by differences in the cost of service. Not every discrimination, however, is unlawful, but only those that are undue or unreasonable,⁵ and in the estimation of courts and commissions differences in rates may sometimes be justified, as we shall see, by value-of-service factors as well as by cost-of-service factors.

REASONABLE RATES MAY CAUSE UNDUE PREJUDICE

Rate controversies under Section 3 of the Act relate to rate relationships and not to the reasonableness of the rates themselves. Rates may be unduly preferential or prejudicial under Section 3 although not unreasonable under Section 1. In the words of the United States Supreme Court, "... a charge may be perfectly reasonable under Section 1, and yet may create an unjust discrimination or an unreasonable preference under sections 2 and 3."⁶ And in another case the Court said, "Both rates may lie within the zone of reasonableness and yet result in undue prejudice."⁷ Since the injury in a Section 3 case results from a difference in rates and not from the level of rates themselves, orders to remove undue preference are often in the alternative, permitting the carrier to raise the preferential rate, lower the prejudicial rate, or equalize both at some other common level. The Commission has the power, however, under Section 15 of the Act to prescribe maximum and minimum rates, and if need be, the precise rate to be charged.

DISCRIMINATION IMPLIES UNEQUAL TREATMENT BY SAME CARRIER

Section 3 cannot remove all discrepancies in rates that work to the disadvantage of one community and the advantage of another. It can only remove discrepancies caused by unequal treatment of two or more places by the same carrier. "What Congress sought to prevent by that section," says the Supreme Court, "was not differences between localities in transportation rates, facilities and privileges, but unjust discrimination between them by the same carrier or carriers."⁸ This point can be

⁵ *Manufacturers Ry. Co. v. United States*, 246 U.S. 457, 481 (1918); *Nashville, Chattanooga & St. Louis Ry. v. Tennessee*, 262 U.S. 318, 322 (1923).

⁶ *Interstate Commerce Commission v. Baltimore & Ohio R. R. Co.*, 145 U.S. 263, 277 (1892).

⁷ *United States v. Illinois Central R. R. Co.*, 263 U.S. 515, 524 (1924).

⁸ *Central R. R. Co. of New Jersey v. United States*, 257 U.S. 247, 259-260 (1921).

made clear by an illustration. Suppose, as in Fig. 35, that A and B are localities producing a given commodity to be sold at M. If A and B are served by the same carrier, a rate of 80 cents from A to M and of 60 cents from B to M would, if the cost of transportation was the same in the two cases, amount to a discrimination against A, and a preference to B. But if A is served by railroad *x* and B is served by *y*, a finding of undue preference or prejudice cannot be found. Railroad *x* cannot prefer B which it does not serve; railroad *y* cannot discriminate against A which it does not serve. "It would be quite absurd to charge a railroad with giving preference or advantage to a community which it does not serve, and it is equally illogical to say that it can prejudice or discriminate against such a community."⁹ In another case the Commission

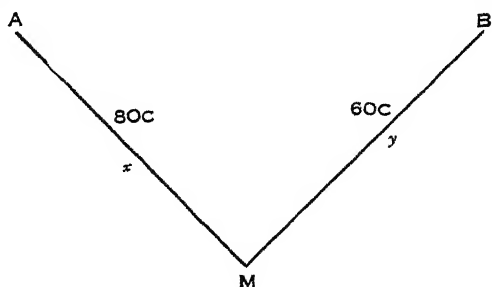


FIG. 35.—Unequal Treatment by Different Carriers.

said: "... a carrier can not discriminate within the meaning of the statute except as between those whom it serves or whom it may lawfully be required to serve. . . . The law does not deal in these matters with all carriers collectively as a single unit or system, but its commands are directed to each, with respect to the service which it is required to perform."¹⁰ The Commission has repeatedly held that a carrier is not guilty of unjust discrimination because its rates to a common market are higher than those of other carriers from other points of origin.¹¹

The situation is otherwise if the originating lines are different, but the delivering carrier is the same. Thus in the diagram at the left in Fig. 36, railroads *x* and *y* serve different points of origin, but rely upon a common connection to deliver the shipments to M. Here a finding of

⁹ *Eau Claire Board of Trade v. Chicago, Milwaukee & St. Paul R. R. Co.*, 4 I.C.R. 65, 78 (1892).

¹⁰ *Chicago Lumber & Coal Co. v. Tioga Southeastern Ry. Co.*, 16 I.C.C. 323, 332 (1909).

¹¹ *Consumers Co. v. Chicago & North Western Ry. Co.*, 36 I.C.C. 259, 261 (1915); *Stone Products Co. v. Director General*, 61 I.C.C. 51, 53-54 (1921).

undue preference and prejudice may be made.¹² The theory is that railroad *z* should not participate in rates from A and B which unjustly discriminate against one of these points. Railroad *z*, in effect, serves both A and B, but over the rails of *x* and *y*. It is held to be immaterial, furthermore, whether the rates from A to M and B to M are joint rates or a combination of local rates based on C.¹³

A finding of undue prejudice can also be made if, as in the diagram at the right in Fig. 36, railroad *x* extends from A to M, and railroad *y* delivers shipments to it at C for delivery at M. Here again, railroad *x* serves B, but over the rails of another line.¹⁴

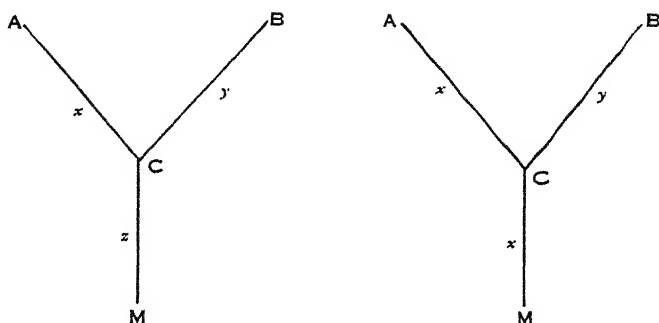


FIG. 36.—Discrimination When Originating Lines Are Different.

It is not necessary for a carrier to serve both the prejudiced and preferred points, or either, over its own rails, in order to come under the provisions of Section 3. "Localities require protection as much from combinations of connecting carriers as from single carriers whose 'rails' reach them. Clearly the power of Congress and of the Commission to prevent interstate carriers from practicing discrimination against a particular locality is not confined to those whose rails enter it."¹⁵ But if a carrier does not serve both the prejudiced and preferred points over its own rails, it must participate in the rates to both. As the United States Supreme Court has stated it: ". . . a carrier may not be held responsible for undue prejudice or preference unless both of the localities affected are upon its lines, or it effectively participates in the rates

¹² See statement of the United States Supreme Court in *Texas & Pacific R. R. Co. v. United States*, 289 U.S. 627, 648 (1933).

¹³ *United States v. Illinois Central R. R. Co.*, 263 U.S. 515, 527 (1924).

¹⁴ See *Indiana Steel Wire Co. v. Chicago, Rock Island & Pacific Ry. Co.*, 16 I.C.C. 155 (1909); also *United States v. Illinois Central R. R. Co.*, 263 U.S. 515 (1924).

¹⁵ *St. Louis Southwestern Ry. Co. v. United States*, 245 U.S. 136, 144 (1917)

to both."¹⁶ The carrier must either serve both points, or participate in the rates to both in such manner that it can be said to be within its power to remove the discrimination. Power to remove the discrimination means power to choose between raising the preferential rate or lowering the prejudicial rate. If only one point is reached there is no alternative presented to the carrier; it cannot be said to control the rate relationship.

INTERSTATE AND INTRASTATE RATES

The power of the Interstate Commerce Commission to remove undue preference and prejudice by raising preferential intrastate rates was upheld in the famous *Shreveport Rate Cases*.¹⁷ This power enables the Commission to prevent States from maintaining preferential intrastate rates that favor points within the State and discriminate against points without. Section 13 of the Interstate Commerce Act, added by the Transportation Act of 1920, also deals with this type of discrimination and empowers the Commission to remove it.¹⁸ Although the Commission can remove discrimination against points in interstate commerce caused by preferential intrastate rates, it has held that it has no power to remove discrimination against intrastate commerce, since that power rests with the States.¹⁹

ONLY "UNDUE" AND "UNREASONABLE" PREFERENCE PROHIBITED

The Act, we have already noted, does not prohibit all preferences and prejudices, but only such as are "undue" and "unreasonable." Since the Act does not define what shall be due or undue, reasonable or unreasonable, it is for the Commission to decide whether the discrimination is within the law or not. "Whether a preference or advantage or discrimination is undue or unreasonable or unjust is one of those questions of fact that have been confided by Congress to the judgment and discretion of the Commission. . . ."²⁰

¹⁶ *Texas & Pacific Ry. Co. v. United States*, 289 U.S. 627, 646 (1933). See also *ibid.*, 654-655.

¹⁷ 234 U.S. 342 (1914), referred to more fully, pp. 281-282, *supra*.

¹⁸ It is possible that the Commission's powers under Section 13 are broader than under Section 3, and that discrimination against points in interstate commerce and preference to points in intrastate commerce can be found even though the preferred and prejudiced points are not served by the same carriers. See dissenting opinion of Commissioner Splawn in *Rates on Road Aggregates within the State of Georgia*, 256 I.C.C. 475, 487-488 (1943).

¹⁹ *Mutual Creamery Co. v. American Railway Express Co.*, 132 I.C.C. 207, 210-212 (1927).

²⁰ *Manufacturers Ry. Co. v. United States*, 246 U.S. 457, 481 (1918); see also *Texas & Pacific Ry. Co. v. Interstate Commerce Commission*, 162 I.C.C. 197, 220 (1896).

A COMPETITIVE RELATION BETWEEN COMMUNITIES MUST EXIST

A competitive relation between places is essential to a finding of undue preference and prejudice. It is usually because of such a competitive relationship between communities that discrimination affects one community adversely and benefits another.

Two types of cases may be distinguished in this respect: those in which the discrimination is really between particular individuals located at different places; and those in which the community as a whole is discriminated against. The two classes shade into each other to the extent that the community is affected by the prosperity of a particular industry or business. In the first class of cases the complainant is usually an individual or corporation; in the latter, it is often some organization representing the community or business interests of the community. Cases of the latter sort are frequent and have led to the statement that important discrimination cases take on the aspects of "pitched battles between Manufacturers' Associations or Chambers of Commerce of competing localities."²¹

The competitive relationship between communities must be proved in a discrimination case, and the Commission often dismisses cases of alleged undue preference and prejudice because of the absence of a competitive relationship.²² When the competition is between rival towns for population, industry, or commercial establishments, a competitive relationship is more or less taken for granted. When the case involves rival manufacturers located at different places, more definite proof of the competitive relationship is essential.

ACTUAL INJURY MUST BE SHOWN

For prejudice to be undue and unreasonable the rate relationship must be the source of actual injury to the complaining locality and beneficial to the preferred locality.²³ In many cases the Commission has held that, even if rates are improperly related as measured by distance, a finding of undue prejudice cannot be made unless there is a showing

²¹ Anon., "Consideration and Control of Commercial Conditions in Railroad Rate Regulation," 40 *Yale Law Journal* 600, 602-603 (1931).

²² *Western Carolina Shippers Assoc. v. Asheville Southern Ry. Co.*, 174 I.C.C. 353, 358 (1931); *Kistler Leather Co. v. Pittsburgh, Shawmut & Northern R. R. Co.*, 169 I.C.C. 247, 252 (1930).

²³ *Federated Metals Corp. v. Pennsylvania R. R. Co.*, 161 I.C.C. 287, 288 (1930); *City of Moorhead v. Great Northern Ry. Co.*, 172 I.C.C. 38, 43 (1931).

of actual injury.²⁴ Proof of injury is often shown by loss of shipments or inability to compete because of the rate adjustment.²⁵

In a few cases the Commission has held that potential injury from a rate adjustment is sufficient to prove undue preference and prejudice.²⁶ There is a tendency, however, to require a showing that actual injury has been suffered before a rate relationship will be found unduly preferential or prejudicial. Commissioner Eastman once argued for a more lenient rule. He pointed out that to prove that actual injury has been suffered from a maladjustment of rates is always difficult, and that to require it is in open conflict with the principle of equality of opportunity. "Moreover," he argued, "it is a cruel doctrine because, instead of forestalling injury, it makes it impossible to correct a maladjustment until the harm has been done."²⁷ Commissioner Lee has also argued for a more liberal attitude by the Commission on this point.²⁸

Two qualifications to the rule that the rate adjustment must injure one locality and benefit another before undue prejudice can be found seem to be justified. When the rate disadvantage of the prejudiced point is offset by some advantage not possessed by its rivals, such as nearness to market or a lower cost of production, proof of actual injury may be difficult, and ability to compete may not be destroyed by the unequal rates. But certainly a carrier ought not to deprive a community of equal treatment in the matter of rates merely because that community possesses some advantage over its rivals. This principle is recognized by the Commission. It has frequently found undue prejudice when the prejudiced point was able to compete successfully with the preferred points in spite of its rate handicap.²⁹

The other qualification occurs when a community is at a disadvantage not only because of the rate adjustment but because of some other disadvantage as well, such as a greater cost of production. In this situa-

²⁴ *Anson, Gilkey & Hurd Co. v. Great Northern Ry. Co.*, 182 I.C.C. 102, 114 (1932).

²⁵ *Sand, Gravel & Crushed Stone*, 181 I.C.C. 373, 393 (1932); *Knoxville Freight Bureau v. Southern Ry. Co.*, 156 I.C.C. 315, 319 (1929).

²⁶ *Acme Mills & Co. v. Alabama Great Southern R. R. Co.*, 136 I.C.C. 114 (1927); *York Manufacturers Assoc. v. Pennsylvania R. R. Co.*, 107 I.C.C. 219 (1926).

²⁷ *Carriage Pulp & Board Co. v. Pennsylvania R. R. Co.*, 177 I.C.C. 217, 224 (1931); *Illinois Coal Traffic Bureau v. Alton R. R. Co.*, 223 I.C.C. 9, 43 (1937). When reparation is sought, actual proof of damages suffered, should, of course, be proven.

²⁸ See his dissenting opinion in *Schoen Bros., Inc., v. Erie R. R. Co.*, 258 I.C.C. 161, 171-176 (1944).

²⁹ *Meridian Traffic Bureau v. Southern Ry. Co.*, 60 I.C.C. 5, 11 (1920); *Mayor and City Council of Douglas, Ga. v. Atlanta, Birmingham & Atlantic R. R. Co.*, 28 I.C.C. 445, 450 (1913); *Allen Manufacturing Co. v. Nashville, Chattanooga & St. Louis Ry. Co.*, 98 I.C.C. 405, 407 (1925).

tion the removal of the rate discrimination may not enable the prejudiced locality to compete. Here it is impossible to say that injury is caused by the rate adjustment and not by the other disadvantage. The policy of the Commission in such situations is not clearly defined. Cases of this sort sometimes divide the Commission. The issue was presented in a case attacking the rates on packing-house products from Duluth to St. Paul as compared with lower rates from St. Paul to Duluth. Packers at Duluth alleged that the higher rates from Duluth to St. Paul operated to the disadvantage of the Duluth packers and favored the St. Paul packers. It appeared, however, that the principal disadvantage of the Duluth packers was the fact that they purchased livestock in St. Paul and had to pay freight thereon to Duluth, while the St. Paul packer had no freight rate to pay on livestock purchased in the Twin-City market. The Commission admitted this was the situation but said: "that is no reason why Elliott & Company should be subjected to an additional disadvantage with respect to the freight rates between Duluth and St. Paul." "It is wholly impossible," said the Commission, "to reach the conclusion that the Duluth packing plant suffers no measure of injury because of the discriminatory freight-rate situation, or that its competitive position would not be improved if the discrimination were removed."³⁰ Two commissioners (Hall and Woodlock) dissented. Commissioner Hall pointed out that Duluth's disadvantage was not caused by the rate relationship attacked, but by the fact that Duluth had to purchase live animals in the Twin Cities and pay the freight thereon to Duluth. The same point was involved in an earlier case which concerned higher livestock rates from Illinois points to Indianapolis than applied to Chicago. The lower rates to Chicago were alleged to be preferential to Chicago and unduly prejudicial to Indianapolis. It was contended that the disadvantage of Indianapolis in competing for Illinois livestock shipments was not due to the rate adjustment but to its inferiority as a livestock market in comparison with Chicago. But the Commission said: ". . . any superiority which Chicago may have over Indianapolis as a live-stock market may not be urged as a reason for denying to Indianapolis a nonprejudicial adjustment of freight rates."³¹ But the opposite conclusion was reached in a case which involved dis-

³⁰ *Duluth Chamber of Commerce v. Chicago, St. Paul, Minneapolis & Omaha Ry. Co.*, 122 I.C.C. 739, 743 (1927).

³¹ *Indianapolis Chamber of Commerce v. Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.*, 60 I.C.C. 67, 73 (1920).

crimination between commodities.³² Here the Commission refused to remove a discrimination in rates since, even with the disadvantage removed, the complainant would be unable to compete because of the additional disadvantages under which he labored.³³ This decision brought forth a vigorous dissent from Commissioner Eastman.

CAN EQUAL RATES BE DISCRIMINATORY?

In the usual undue prejudice case the prejudicial rate is higher, in the absolute sense, than the preferential rate, whereas the service in the two cases is alleged to justify equality in rates or at least a smaller difference in rates. The question arises whether equal rates can constitute undue preference and prejudice if the amount of service is different. The question has been definitely answered in the affirmative by the Commission. Commissioner Eastman once referred to the "curious doctrine" urged before the Commission that equal rates could not cause discrimination. "Other things being equal," he concluded, "it is as unduly preferential to give one shipper twice as much transportation as another for the same charge as it is to give him the same amount at half the price."³⁴ The Commission has frequently found equal rates for unequal services to result in undue preference and prejudice.³⁵ The United States Supreme Court has not passed upon this question directly. In the Texas Port Relationship case the Commission attempted to break up the practice of equalizing rates to New Orleans and to Texas ports from points in the Southwest when the distances to New Orleans exceeded those to Galveston by more than 25 percent.³⁶ The Commission's order was upheld by a lower Federal court with one judge dissenting. The dissenting judge said: "I fail to see how the plaintiffs can be guilty of undue preference to New Orleans, or undue prejudice to Texas ports by charging the same rate to both."³⁷ The Supreme Court reversed the lower court and refused to sustain the Commission, but the case turned on other points, and the Supreme Court said nothing about the allega-

³² *Barrett Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 172 I.C.C. 319 (1931).

³³ *Ibid.*

³⁴ Separate opinion in *Dutton Lumber Co. v. New York, New Haven & Hartford R. R. Co.*, 151 I.C.C. 391, 415 (1929).

³⁵ *Commercial Association v. Galveston & San Antonio Ry. Co.*, 128 I.C.C. 349 (1927); 160 I.C.C. 345 (1929); *Inland Empire Shippers League v. Director General*, 59 I.C.C. 321 (1920); *Milk Producer's Protective League v. Delaware, Lackawanna & Western R. R. Co.*, 7 I.C.C. 92 (1897); *Kansas Grain Assoc. v. Chicago, Rock Island & Pacific Ry. Co.*, 139 I.C.C. 641, 670 (1928).

³⁶ 128 I.C.C. 349 (1927), 160 I.C.C. 345 (1929).

³⁷ *Texas & Pacific Ry. Co. v. United States*, 42 F. (2d) 281, 286-287 (1930).

tion that equal rates could not cause undue preference or advantage. But Justice Stone, in a separate opinion, said: "In holding that the Commission is without power to make the order, the Court does not deny that a discrimination which is produced by charging equal rates for unequal service is prohibited by the statute as much as one resulting from unequal rates for equal service."³⁸

CAN LOWER RATES BE PREJUDICIAL AS COMPARED WITH HIGHER?

The Commission, however, goes further than to hold that equal rates may be discriminatory. It has held that a community enjoying lower rates than another may still be prejudiced.³⁹ Here, of course, the lower rates are higher in the relative sense, that is, when distance is considered. One of the lower Federal courts, in a case not arising under Section 3, held that a rate lower than was charged a competitor could not be injurious. "How could a competitor who is complaining be injured by a rate higher than his rate? . . . He could not be injured by the higher rate. If there be injury, it is because of difference in other conditions, not rates."⁴⁰ Admittedly, if a community enjoying lower rates than its rival is unable to compete, it must be under some other disadvantage such as higher cost of production. But even so, is not the community which is handicapped by a high cost of production still entitled to an equitable rate adjustment?

RATE DIFFERENCES AND "TRANSPORTATION" CONDITIONS

Difference in rates must be justified by "transportation" conditions, if undue preference and prejudice are to be avoided, and the phrase "transportation conditions" includes cost-of-service and value-of-service factors.⁴¹

COST OF SERVICE

A difference in rates which is justified by differences in cost of service is not a discrimination at all. Any cost factor may justify a difference in rates. A difference in distance is probably the most im-

³⁸ *Texas & Pacific Ry. Co. v. United States*, 289 U.S. 627, 656 (1933).

³⁹ E.g., *Northern Potato Traffic Assoc. v. Atchison, Topeka & Santa Fe Ry. Co.*, 178 I.C.C. 237, 245 (1931); *Milk & Cream to New York City*, 45 I.C.C. 412 (1917); *Elk Cement & Lime Co. v. Baltimore & Ohio R. R. Co.*, 22 I.C.C. 84 (1911); *Rich Ladder & Mfg. Co., v. Akron, Canton & Youngstown Ry. Co.*, 241 I.C.C. 475, 482-483 (1940).

⁴⁰ *Anchor Coal Co. v. United States*, 25 F. (2d) 462, 471 (1928).

⁴¹ *York Manufacturers Assoc. v. Pennsylvania R. R. Co.*, 107 I.C.C. 219, 229, 230 (1926); *Maritime Assoc., Boston Chamber of Commerce v. Ann Arbor Railroad Co.*, 95 I.C.C. 539, 565 (1925).

portant factor justifying differences in rates to or from rival localities. The proneness of the Commission to solve difficult discrimination cases by resort to modified distance scales has already been noted.⁴² But distance is not the only cost factor. Thus differences in operating conditions justify unequal rates even though distances are the same.

Cost of service is also affected by traffic density and by the volume of movement of a particular commodity. It therefore seems proper to take these matters into consideration in determining whether a rate difference is justified. But here a difficulty is encountered. A low traffic density or a light movement of a particular commodity may be caused by the rate disparity. These factors, therefore, are not of much value in attempting to justify differences in rates. This has been frequently recognized by the Commission. In the case previously described, relating to the livestock rates from Illinois points to Indianapolis as compared with the rates to Chicago, the lower intrastate rates in Illinois were alleged to be justified by the greater traffic density. But the Commission pointed out that the greater density in Illinois was in part caused by "the very condition which this complaint seeks to rectify, namely, the existence of a higher scale of rates mile for mile on livestock from Illinois to Indiana than exists intrastate in Illinois."⁴³ The same rule applies when the volume of movement of a particular commodity is less between some points than others. In one case the Commission found that higher rates on tires eastbound from San Diego, California, than applied westbound was prejudicial to the western producers. The Commission pointed out that while the westbound movement was heavier than that eastbound, the rate relationship itself prevented the free movement of the western product into eastern centers. To permit the difference in volume of movement to justify the rate difference would be to make a preference "justify itself because of the results it produces."⁴⁴

DEMAND FACTORS

Similarity in "transportation conditions" includes not only cost factors, but conditions affecting the demand for transportation service.

⁴² P. 189, *supra* and see *Oklahoma Portland Cement Co. v. Denver & Rio Grande Western R. R. Co.*, 128 I.C.C. 63, 82 (1927).

⁴³ *Indianapolis Chamber of Commerce v. Cleveland, Chicago, Cincinnati & St. Louis Ry. Co.*, 60 I.C.C. 67, 75 (1920).

⁴⁴ *Spreckles Savage Tire Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 142 I.C.C. 507, 512 (1928). For other cases illustrating the same principle, see *Memphis-Southwestern Investigation*, 77 I.C.C. 473, 483 (1923); *Natchez Chamber of Commerce v. Louisiana & Arkansas Ry. Co.*, 58 I.C.C. 610, 618 (1920).

There are numerous qualifications, however, to the principle that rate discrepancies can be justified by differences in the demand for the service. This will be apparent if we proceed to a consideration of some of the conditions affecting the demand for transportation service.

DISADVANTAGE OF LOCATION

If traffic is to move at all from various competing centers of production to a common market, it may be necessary to quote low rates from some points to overcome a natural disadvantage. The disadvantage may be due to greater distance from market or from raw materials, or it may be due to higher production costs. A community, however, cannot demand preferential rates to offset a natural disadvantage of location. "Carriers are not required by law, and could not in justice be required, to equalize natural disadvantages, such as location, cost of production, and the like."¹⁵ In one case the Commission refused to require the carriers to give lower rates on cotton to Port Arthur, Texas, than were applied to Galveston. It was argued before the Commission that with equality in rates Port Arthur could not compete with Galveston. The Commission did not consider the argument as sound. "Unjust discrimination by carriers can not be predicated upon their failure or declination to remove, by preferential rates, services, or privileges, the natural disadvantages of location under which one community rests in competition with another that is more favorably located. We have consistently held that it is not our province to adjust rates for the purpose of equalizing natural or commercial advantages."¹⁶

ADVANTAGE OF LOCATION

The Commission, we have seen, cannot require the establishment of rates to remove disadvantages of location. Sometimes, however, the carriers voluntarily adjust rates to neutralize locational disadvantages. This may be done by giving less favorable rates to localities possessed of some advantage of location, or by granting more favorable rates to points possessed of some disadvantage of location. The Commission has held in many cases that a carrier may not deprive a community of its advantages of location. Objections to such a practice are

¹⁵ *Elk Cement & Lime Co. v. Baltimore & Ohio R. R. Co.*, 22 I.C.C. 84, 88 (1911).

¹⁶ *Port Arthur Board of Trade v. Abilene & Southern Ry. Co.*, 27 I.C.C. 388, 402 (1913). See also *Sheridan Chamber of Commerce v. Chicago, Burlington & Quincy R. R. Co.*, 28 I.C.C. 250, 262 (1913); *Andy's Ridge Coal Co. v. Southern Ry. Co.*, 18 I.C.C. 405, 409 (1910).

particularly obvious when an advantage of location is taken away by subjecting a community to relatively high rates to neutralize locational advantage. Early in its history the Commission condemned rates constructed on such a principle. Rates on lumber from Eau Claire, Wisconsin, were considerably higher than from other lumber-producing points in the vicinity. Eau Claire possessed certain advantages over its rivals which lowered its costs of production. In order to equalize the competitive advantages of the rival lumber-producing points, the rates from Eau Claire were made higher than from the competing towns. The Commission condemned the principle underlying the adjustment as "radically unsound." "That rates should be fixed in inverse proportion to the natural advantages of competing towns, with the view of equalizing 'commercial conditions,' as they are sometimes described, is a proposition unsupported by law and quite at variance with every consideration of justice. Each community is entitled to the benefits arising from its location and natural conditions, and any exaction of charges unreasonable in themselves or relatively unjust, by which those benefits are neutralized or impaired, contravenes alike the provisions and the policy of the statute."⁴⁷ In another case the Commission found that higher rates on lumber from Humboldt Bay points on the Pacific Coast than applied from other points on the Coast prejudiced the former and preferred the latter. It was argued that the Humboldt Bay points enjoyed certain advantages over their rivals and that this offset the rate disadvantage. But the Commission replied: "The Humboldt Bay points can not be denied an equality of rates with the coast group points merely because the complainant manufacturers enjoy peculiar natural advantages over their coast group competitors."⁴⁸ Elsewhere the Commission has said: "Where the transportation conditions are substantially similar we have never held that a carrier has the right to discriminate against one point in favor of another because a shipper located at the former has a natural advantage over his competitor located at the latter."⁴⁹ The Texas commission was once overruled when it attempted to require higher rates to Galveston than to Houston. The order was defended on the ground that Galveston had natural advantages not possessed by Houston and could therefore hold its own even if subjected to higher rates. But the Court did not consider this a valid defense, and held that the Commis-

⁴⁷ *Eau Claire Board of Trade v. Chicago, Milwaukee & St. Paul R. R. Co.*, 4 I.C.R. 65, 77 (1892).

⁴⁸ *Pacific Lumber Co. v. Northwestern Pacific R. R. Co.*, 51 I.C.C. 738, 742 (1918).

⁴⁹ *Cornell v. Lehigh Valley R. R. Co.*, 57 I.C.C. 157, 161 (1920).

sion was not given the power to offset natural advantages by rate adjustments.⁵⁰

In several of the cases just mentioned the advantage which the carriers were not permitted to take away was the advantage of lower cost of production. A similar policy has been announced when the advantage is one of distance. Thus in one case rates on rice from points in Arkansas to points in Central, Southern, and Western territories, were found prejudicial as compared with rates from New Orleans, Memphis, and interior Louisiana. Distance had largely been ignored in making the rates. The Commission held that the right of the complainants to the natural advantages of their geographical location could not be taken away from them by rate adjustments and that the wide differences in distance to common destinations must be recognized.⁵¹

GROUP RATES AND THE ADVANTAGE OF LOCATION

The principle that a carrier may not take away a natural advantage is not wholly consistent with the Commission's approval of group rates. Wherever group rates exist there is some disregard of distance—a disregard of distance that increases as the size of the groups increases. The Commission, in some cases, has declared that group rates are not inconsistent with the principle that every community is entitled to its natural advantages.⁵² In other cases the Commission has admitted that every system of group rates must occasion more or less discrimination.⁵³

If the group rates do not work positive injury to the nearer points, however, they will not be considered objectionable. There are many cases in which the Commission has definitely refused to break up group or blanket rates, notwithstanding the fact that they tended to deprive some communities of their advantage of location. But there are also many cases in which groups have been broken up to give the nearer points in the group the advantage to which they were entitled.

In some cases of this type an attempt has been made to distinguish between group or blanket rates that open up so much territory in competition with the nearer points that a loss of shipments from the nearer points must occur, and, on the other hand, situations in which

⁵⁰ *Railroad Commission of Texas v. Galveston Chamber of Commerce*, 51 Texas Civ. App. 476, 485 (1908)

⁵¹ *Stuttgart Rice Mill Co. v. Alabama & Vicksburg Ry. Co.*, 93 I.C.C. 517, 530 (1924).

⁵² See *Inland Empire Shippers League v. Director General*, 59 I.C.C. 321, 341 (1920); *Iron Ore Rate Cases*, 41 I.C.C. 181, 214 (1916).

⁵³ E.g., *Mitchell v. Atchison, Topeka & Santa Fe Ry. Co.*, 12 I.C.C. 324 (1907).

the market can take the product from all points given the blanket rate. In an early case involving blanket rates on milk to New York City the Commission dismissed the allegation that the equal rates amounted to an unjust discrimination against the nearby producers and a preference to the distant producers. The decision was based partly on the fact that the costs of transporting milk bore little relation to distance, and the fact that the encouragement of milk shipments from the more distant points had not curtailed the output of the nearer producers since the market could absorb the whole supply.⁵⁴ A few years later the same rate adjustment came before the Commission again. The blanket area had now been extended to distances exceeding 300 miles, in some instances to more than 400 miles, from New York City. The Commission found that the extension of the blanket area was opening up more territory than necessary to supply the market and was operating to the disadvantage of the nearer producers. "The interests of all milk producers, whether located within 50 or 250 miles of New York City on any of the lines, in retaining the share of this traffic to which their nearer location would naturally entitle them, are plainly imperilled under a uniform rate for the transportation service."⁵⁵ A similar distinction was made in another early case. Equal rates on coal in disregard of differences in distance were permitted. The Commission held that a considerable disregard for distance to equalize access to markets was permissible in many instances, but that in other cases it might be unreasonable to give equal rates to diversely situated localities. The latter would be the case, the Commission said, if there was insufficient demand for the commodity so that the nearer points had to divide the market with their more distant competitors.⁵⁶ It does not appear, however, that a distinction of this sort is made in all cases which involve alleged discrimination through the maintenance of group rates.

Another point regarding group rates and undue preference requires mention. The greater the length of the haul, the greater the actual differences in distance that may be ignored. Stated in another way, groups may be larger for long-distance shipments than for shorter ones.⁵⁷ In the words of the Commission, "This discrimination grows

⁵⁴ *Howell v. New York, Lake Erie & Western R. R. Co.*, 2 I.C.C. 162 (1888).

⁵⁵ *Milk Producers' Protective Assoc. v. Delaware, Lackawanna & Western R. R. Co.*, 7 I.C.C. 92, 167 (1897).

⁵⁶ *Imperial Coal Co. v. Pittsburgh & Lake Erie R. R. Co.*, 2 I.C.C. 436 (1889).

⁵⁷ See *Mutual Rice Trade & Development Assoc. v. International Great Northern R. R. Co.*, 23 I.C.C. 219, 224 (1912).

relatively more in proportion as the distance from the group decreases, and plainly there must come a point when the point of origin is so near the group that the discrimination will become undue."⁵⁸

COMPETITION AND DISCRIMINATION

We now come to consider a much-disputed question—the extent to which carrier competition will justify discrimination between places. May a railroad grant a preferential rate to one community, where it encounters competition with other carriers, and withhold an equally low rate from another point similarly situated but where no competition exists? Three different answers have been given to this question: (1) It has been stated that competition does not afford a valid excuse for discrimination. (2) Exactly the opposite position has been taken, namely, that the existence of competition at one point and not at another is sufficient to justify discrimination. (3) The position has been taken that competition may or may not justify discrimination depending on the circumstances.

The first position has sometimes, but not frequently, been taken by the courts. In 1873 the Illinois Supreme Court said: "If a farmer, living three miles from the Springfield station . . . is charged fifteen cents per bushel for shipping his corn to Chicago, is it just that the farmer who lives twenty miles nearer Chicago should be charged a higher sum? Certainly not, unless the railway company can show a peculiar state of affairs to justify the discrimination, and this must be something more than the mere fact that there are competing lines at one point and not at the other."⁵⁹ Later on in the same case the Court again said: ". . . the discrimination must be unjust, if the lesser rates for the greater distance have been established merely because the railroad has ceased to exercise at that point a practical monopoly."⁶⁰ A later Illinois statute specifically provided that the existence of competition at one point and not at another should not be a sufficient excuse or justification for a discrimination against the latter.⁶¹ A similar position to that of the Illinois Supreme Court was taken by the Supreme Court of the State of Washington in a more recent case. In interpreting a statute of that State which forbade undue preferences and prejudices the Court said: "We think the section of the statute forbidding a carrier from

⁵⁸ *Mitchell v. Archison, Topeka & Santa Fe Ry. Co.*, 12 I.C.C. 324, 325 (1907).

⁵⁹ *Chicago & Alton R. R. Co. v. The People*, 67 Ill. 11, 19 (1873).

⁶⁰ *Ibid.*, p. 21.

⁶¹ See *Illinois Central R. R. Co. v. The People*, 121 Ill. 304, 310, 319 (1887).

giving undue and unreasonable preferences and advantages to persons, localities, or particular descriptions of traffic, must apply in all instances where no transportation differences intervene, regardless of the question whether the person, locality, or description of traffic is affected by the competition of a rival carrier or not."⁶²

In interpreting the Interstate Commerce Act the Federal courts have taken a different position. In general they have declared that competition may, but does not necessarily, justify a discrimination. And since competition *may* offer a sufficient excuse for the preference or prejudice, the Commission must consider the element of competition in reaching its decision. Failure to do so is sufficient to invalidate an order requiring discrimination to be removed. This was the position taken by the United States Supreme Court as early as 1896.⁶³ The same point was made in the *Alabama Midland Case*,⁶⁴ and in a later case.⁶⁵

The foregoing cases establish beyond question that in the estimation of the courts competition may justify a preference. It has been strongly urged that the existence of competition at one point and not at another necessarily prevents a finding of undue prejudice. The Supreme Court in the *Alabama Midland Case* took particular pains to point out that its decision was not intended to be so interpreted. "In order . . . to guard against any misapprehension of the scope of our decision it may be well to observe that we do not hold that the mere fact of competition, no matter what its character or extent, necessarily relieves the carrier from the restraints of the 3d and 4th sections, but only that those sections are not so stringent and imperative as to exclude in all cases the matter of competition from consideration in determining the questions of 'undue or unreasonable preference or advantage,' or what are 'substantially similar circumstances and conditions.'"⁶⁶ Whether in a particular case a discrimination is justified by the existence of competition at one point and not at another is therefore a question for the Commission to determine. This was put very clearly by a Federal court in 1896: "It is to be borne in mind that when competition enters as an element in the determination of a case, this question—whether or not there is an undue preference or advantage—is a question not of

⁶² *Public Service Commission v. Northern Pacific R. R. Co.*, 77 Wash. 635, 649-650 (1914).

⁶³ *Texas & Pacific Ry. Co. v. Interstate Commerce Commission*, 162 U.S. 197.

⁶⁴ 168 U.S. 144 (1897).

⁶⁵ *Louisville & Nashville R. R. Co. v. Behlmer*, 175 U.S. 648 (1900).

⁶⁶ 168 U.S. 144, 167 (1897).

law, but of fact. Whether or not the evidence is competent, and must be taken into account, is, of course, a question of law; but with the evidence once admitted, the issue then becomes one of fact."⁶⁷

There are some cases which seem to hold that competition, as a matter of law, must exempt a carrier from a finding of undue preference and prejudice. Thus in one case the United States Supreme Court said: "The prohibition of the third section, when that section is considered in its proper relation, is directed against unjust discrimination or undue preference arising from the voluntary and wrongful act of the carriers complained of as having given undue preference, and does not relate to acts the result of conditions wholly beyond the control of such carriers."⁶⁸ Competition, in that case, was the circumstance which the court considered as placing the preferential rate "beyond the control" of the carrier. But other decisions hold that although the Commission must consider competition as a possible justification of preferential rates, the existence of competition does not necessarily justify unequal treatment. This was brought out in *United States v. Illinois Central R. R. Co.*⁶⁹ The Illinois Central Railroad, along with other carriers, had maintained blanket rates on lumber from producing points on its lines in the South. From some points on independent connecting lines the Illinois Central also applied the blanket rates, but from other points on independent connecting lines higher rates were charged. The Commission found that the exaction of the higher charges from points on the independent short lines was unjustly discriminatory, preferring the points given the blanket rates. The Illinois Central contended that competition forced it to extend the blanket rate to points of origin on independent connecting lines if those points were served by other carriers also, but did not require it when the shipment had to move over the Illinois Central. The United States Supreme Court answered this argu-

⁶⁷ *Interstate Commerce Commission v. Louisville & Nashville R. R. Co.*, 73 Fed. 409, 419 (1896).

⁶⁸ *East Tennessee, Virginia & Georgia Ry. Co. v. Interstate Commerce Commission*, 181 U.S. 1, 18 (1900). There are a number of other court decisions to the same effect. See *Interstate Commerce Commission v. Western & Atlantic R. R. Co.*, 88 Fed. 186, 194-197 (1898), 93 Fed. 83 (1899); *Interstate Commerce Commission v. Cincinnati, Portsmouth & Virginian R. R. Co.*, 124 Fed. 624 (1903); *Interstate Commerce Commission v. Louisville & Nashville R. R. Co.*, 190 U.S. 273 (1903); *Louisville & Nashville R. R. Co. v. United States*, 197 Fed. 58 (1912). See also *Texas & Pacific Ry. Co. v. United States*, 289 U.S. 627, 636 (1933), where the Supreme Court said: "The theory of the Act is that the carriers in initiating rates may adjust them to competitive conditions, and that such action does not amount to undue discrimination."

⁶⁹ 263 U.S. 515 (1924).

ment by saying: "The innocent character of the discrimination practiced by the Illinois Central was not established, as a matter of law, by showing that the preferential rate was given to others for the purpose of developing traffic on the carrier's own lines or of securing competitive traffic. These were factors to be considered by the Commission; but they did not preclude a finding that the discrimination practiced is unjust."⁷⁰ The same principle is implied in another case where the Supreme Court said: "... This competition eliminates from the case an intent to do an unlawful act, and leaves for consideration only the question whether the rates as established do work an undue preference or discrimination."⁷¹

We may therefore conclude that competition does not necessarily justify a preference in rates. This is the theory upon which the Commission acts. "It is undoubtedly true that when competitive conditions are sufficiently potent to compel lower rates to one locality than are maintained by the same carriers to another locality similarly situated, such competition may be accepted in justification of a resulting preference to the favored locality, which, but for such competition, might be condemned as undue or unreasonable. It is not to be assumed, however, that the mere fact of competition, regardless of its character, will relieve carriers from the limitations of section 3."⁷² And whatever the Commission may mean, it should be pointed out that it is not merely the intensity of the competition that is the important consideration.

If we turn to a consideration of the Commission's attitude toward competition as a justification of discrimination against places we discover a large number of cases in which the Commission has considered that competition encountered at one point and not at others justified a preferential rate to the former. Competition in many of these cases was competition with other forms of transportation—sometimes with water carriers,⁷³ with pipe lines,⁷⁴ and with motor carriers.⁷⁵ A study of

⁷⁰ *Ibid.*, p. 525.

⁷¹ *Interstate Commerce Commission v. Chicago Great Western Ry. Co.*, 209 U.S. 108, 122 (1908).

⁷² *Chamber of Commerce of Newport News v. Southern Ry. Co.*, 23 I.C.C. 345, 353 (1912).

⁷³ *Connor Lumber & Land Co. v. Akron, Canton & Youngstown Ry. Co.*, 40 I.C.C. 111 (1916); *Texarkana Freight Bureau v. Illinois Central R. R. Co.*, 38 I.C.C. 55, 58-59 (1916), and many other cases.

⁷⁴ *Traffic Bureau, Davenport Chamber of Commerce v. Alton & Eastern R. R. Co.*, 167 I.C.C. 276 (1930); *Cadão Central Oil & Refining Corp. v. Kansas City Southern Ry. Co.*, 98 I.C.C. 39 (1925).

⁷⁵ *Rate Structure Investigation, Part 3—Cotton*, 174 I.C.C. 9, 15 (1931); *Consolidated Southwestern Cases*, 188 I.C.C. 307 (1932).

Commission decisions does not reveal any clear distinction between the competition that will justify a discrimination and that which will not. It is clear, however, that the competition must be "controlling," that is, that the carrier is merely meeting rates controlled by another line,⁷⁶ and that it is not itself responsible for the low rate at the competitive point.

ANALYSIS OF COMPETITION AS AN EXCUSE FOR DISCRIMINATION

At this point it will be helpful to leave our consideration of the Commission's policy and to analyze the contention that competition justifies preferential rates. It will be helpful to approach the problem with the principle in mind that each community is entitled to the advantages of its location.

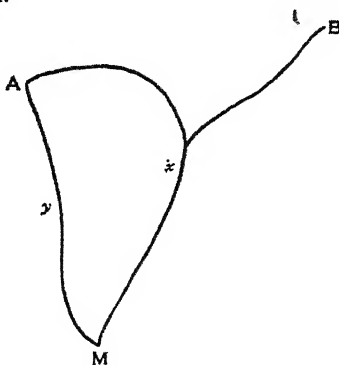


FIG. 37.—Competition with a More Direct Route.

We will first consider a case in which competition seems to justify a discrimination. Suppose, as in Fig. 37, that A and B compete in the production of an article which is to be sold in M. Railroad *x* serves both A and B. Over the lines of railroad *x*, A and B are equidistant from M. We will assume the costs of transportation to be the same from both production points. At A railroad *x* encounters the competition of railroad *y*, a shorter line. The normal rate from A to M via railroad *y* will therefore be lower than that of railroad *x*. Should railroad *x* be permitted to meet the rate of railroad *y* without giving an equally low rate from B? There can be no objection so far as B is concerned. If railroad *x* is forced to maintain a higher rate from A to M than its rival, the traffic will move by the shorter route and A will retain its advantage over B. Nor can railroad *x* be asked to reduce the

⁷⁶ *Kenner Truck Farmers' Assoc. v. Illinois Central R. R. Co.*, 32 I.C.C. 1, 10 (1914).

rate from B simply because it has lowered the rate from A. To do so would deprive A of its advantage of location. A has a natural advantage over B, and should not be deprived of that advantage.

Fig. 38 represents a different situation, but one which may be analyzed the same way. Here the railroad encounters water competition at A and not a B. It should be permitted to meet the water rate without being accused of unjustly discriminating against B. A has a natural advantage over B. As Acworth once described this situation: "To call upon a railway company to give an inland town rates on the same scale as those which it gives when there is sea competition, simply be-

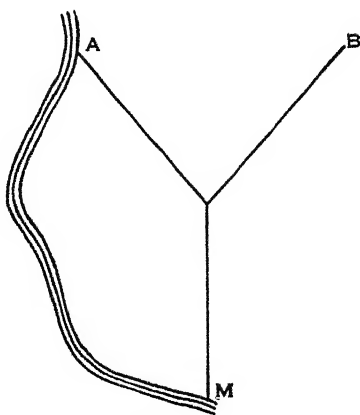


FIG. 38.—Competition with a Water Carrier.

cause it there gives them, is to call upon it, not to maintain equality, but to counteract an inequality for which, not the railway company, but the Author of the Universe is responsible."⁷⁷

Most of the cases in which the Commission finds a discrimination justified by competition can be analyzed with the same results as the two illustrations above. Occasionally, however, the Commission refuses to permit a discrimination which would seem to be justified by the foregoing reasoning. In one case the carriers proposed an 8-cent rate on iron and steel articles from Chicago to Milwaukee to meet water competition. Producers of steel at East St. Louis, Alton, and other points objected to the reduction, alleging that it unduly preferred Chicago and discriminated against them. Division 2 of the Commission refused to permit the reductions. "Respondent's desire to divert traffic

⁷⁷ *The Elements of Railway Economics* (Oxford, Clarendon Press, 1905), pp. 140-141.

from the water lines explains, but by no means justifies, the proposed reductions . . . The fact that shippers located in the Chicago district may ship by water at a rate as low as that proposed does not relieve respondents of their obligations under section 3. . . . There is no provision of the act which gives us authority to relieve the carriers from complying with the provisions of section 3 whenever they desire to divert traffic from their water competitors to their own lines. . . ."⁷⁸ The position taken by Commissioner Brainerd in a dissenting opinion would seem to be more in accordance with the policy usually followed by the Commission. He pointed out that unless the rail rate were reduced, the articles would be shipped by water. The disadvantage of

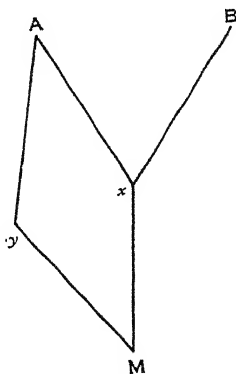


FIG. 39.—Competition between Railroads of Approximately Equal Length.

producers at East St. Louis and Alton would therefore exist whether the railroads maintained the old rate or reduced it to the water rate.

An entirely different situation is presented if, as in Fig. 39, railroad *x* encounters competition with a railroad of approximately equal length. In this situation a lower rate from A to M than from B to M does not result from the fact that the cost of transportation is less from A to M, but from the fact that the railroads are engaging in competition at A and have reduced rates below a reasonable level or else that railroad *x* is maintaining an excessive rate from B to M where it has a monopoly. As far as the costs of transportation are concerned, B is as advantageously located as A. If A gets lower rates than B, the latter point is deprived of the equal treatment to which it is entitled.

⁷⁸ *Iron & Steel Articles from Chicago District*, 163 I.C.C. 369 (1930). The case is complicated by another matter—Section 500 of the Transportation Act, which declares that the policy of Congress is to promote, encourage and develop water transportation.

It may be argued that A has an advantage over B, the advantage of having two routes to M, while B has but one. But this advantage is an artificial advantage, not a natural one. If railroads x and y maintained normal rates from A to M, A would have no rate advantage over B. There are authorities, however, who have considered the existence of competitive routes as an advantage which should not be taken away. In an English case the court said: "I cannot see . . . why the advantageous position of the one trader in having his works so placed that he has two competing routes is not as much a circumstance to be taken into consideration as the geographical position of the other trader, who, though he has not the advantage of competition, is situated at a point on the line geographically nearer the market . . . Of course, if you are to exclude this from consideration altogether, the result must inevitably be to deprive the trader who has the two competing routes of a certain amount of advantage which he derives from the favorable position of his works."⁷⁹ This pronouncement has been quoted approvingly by courts in the United States,⁸⁰ and a similar position has been taken by one American writer.⁸¹ It must be remembered, however, that a reduced rate due to competition alone, and not to the existence of a cheaper route or means of transportation, results from a depressed rate at the competitive point or from the exaction of monopoly charges at the noncompetitive points. The first partakes of the nature of cut-throat competition—an unwise policy—; the second represents an exercise of monopoly power, and is unjust. In either case the point discriminated against has a valid objection to the rate adjustment.

A serious difficulty is encountered in attempting to apply the principle we have just described. If in Fig. 39 railroad y insists on maintaining a lower rate from A to M than x maintains from B, railroad y is probably within its rights. Railroad y , generally speaking, has the right to determine its own rate policy, so long as its rates are reasonable. Railroad x might just as well be permitted to meet this rate. If it is forced to maintain a higher rate than y the traffic will move from A to M via y at the lower rate, and A will retain its advantage. B is not helped if x withdraws from the business of transporting goods from A to M. This situation explains why the Commission insists that the low competitive rate must be compelled by conditions beyond the car-

⁷⁹ *Phipps v. London & North Western Ry. Co.*, 2 Q.B. 229, 242 (1892).

⁸⁰ *Interstate Commerce Commission v. Louisville & Nashville R. R. Co.*, 73 Fed. 409 (1896).

⁸¹ Noyes, W. C., *American Railroad Rates* (Boston, Little, Brown & Co., 1906), p. 93.

rier's control. Railroad x merely meets a situation as it finds it. The situation would be quite different if x controlled the competitive rate and had depressed it of its own accord. But railroad x cannot be said to be responsible for the preferential rate if that rate is set by its rival. In cases of this type it is important to know which carrier is responsible for the low rate.

THE ASHLAND FIRE BRICK CASE

A variation of the situation described above confronted the Commission in the famous *Ashland Fire Brick Case*. Without attempting to describe the facts in that case we can generalize in the form of a diagram the situation there presented. In Fig. 40, A and B are rival

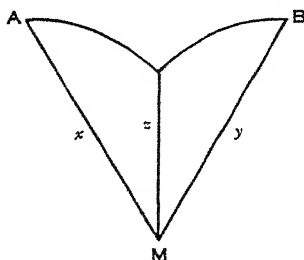


FIG. 40.—The Ashland Rule.

producing areas, and M is a common market. A is served by railroad x , and B by railroad y . Railroad z serves both points of origin. If railroad x insists on maintaining a rate of 80 cents from A to M, while y maintains a rate of \$1.00 from B to M, neither can be found guilty of undue preference or prejudice. This is because x and y do not serve both points of origin, and each is entitled to fix its rates independently of the rates maintained by the other. But railroad z serves both points. Can railroad z charge the 80-cent rate from A to M while maintaining the dollar rate from B to M? If railroad z merely meets the situation that it finds at A and at B, it is difficult to charge it with wrongdoing. The same rate relationship would exist if railroad z did not participate in the business from A to M, or if railroad z did not exist at all.

It was in a situation like this that the Commission announced the rule, already referred to, that "The test of the discrimination is the ability of one of the carriers participating in the two through routes from the two points of origin to the same point of destination to put

⁸² *Ashland Fire Brick Co. v. Southern Ry. Co.*, 22 I.C.C. 115 (1911).

an end to the discrimination by its own act.”⁸³ We considered this rule previously in relation to the question of whether the carrier served both points of origin. Here railroad *z* serves both points of origin, but is still unable to remove the discrimination by its own act, since to raise the rate from A to M leaves its competitor charging the lower rate.

Sometimes situations like that in Fig. 39 and Fig. 40 can be controlled by the exercise of the minimum rate power to prevent railroad *y* in Fig. 39 or railroad *x* in Fig. 40 from maintaining unduly low rates and thereby creating a situation which other railroads must meet if they are to compete for the traffic. This raises the question, however, of the limitations on the Commission's power to prescribe minimum rates. Of course the subnormal rates can be raised if noncompensatory. But if they are compensatory, although less than normal rates, can the Commission require them to be raised? In one case the Commission used its minimum rate power to control a rate situation of this sort and its order was set aside by the United States Supreme Court. The Court said that a “zone of reasonableness exists between maxima and minima within which a carrier is ordinarily free to adjust its charges for itself.”⁸⁴ The Court did not consider that the disruption of the rate structure was sufficient cause for interfering with the rate policy adopted by the railroad. Soon after, in another case, the Supreme Court held, however, that the minimum rate power might be exercised to prevent disruption of a rate structure when the existing structure had been found just and reasonable and the assailed rates low in relation thereto.⁸⁵ It is not clear, however, just how successfully the situations referred to in Fig. 39 and Fig. 40 can be prevented by the exercise of the minimum rate power.

ALL COMPETITIVE POINTS MUST BE TREATED EQUALLY

We have seen that very often a railroad is permitted to reduce rates to meet the competition of a more direct route or of a cheaper form of transportation; and that it does not constitute a violation of Section 3 to withhold the low rate from points where such competition is not

⁸³ *Ibid.*, p. 120. The Supreme Court pointed out in 1933 that this doctrine had since been applied by the Commission in at least 45 cases. *Texas & Pacific Ry. Co. v. United States*, 289 U.S. 627, 649 note 37.

⁸⁴ *United States v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 294 U.S. 499, 506 (1935).

⁸⁵ *Youngstown Sheet & Tube Co. v. United States*, 295 U.S. 476 (1935).

encountered. But if the carrier reduces rates to meet competition at one point, it must make similar reductions at other points where the same competition is encountered. The Commission has said: ". . . carriers are not obligated to meet water competition, nevertheless they may not create an unduly prejudicial situation by meeting it at one point and failing to meet it at a competing point."⁸⁶ This principle is perhaps of the greatest importance when market competition comes into play. A carrier need not reduce its rates to meet the rates of another line extending from another source of supply to a common market, but if it voluntarily makes such a reduction, it must make a similar reduction from all producing points on its lines which are similarly situated.⁸⁷

DISCRIMINATION BETWEEN COMMODITIES

Since the principles recognized in cases involving discrimination between commodities parallel those which we have described in cases relating to discrimination between places, it is necessary to consider them here only briefly.

In the chapter on railway rate theory we used the term "discrimination" to refer to differences in rates not based on differences in cost of service. We found that freight classification is a form of discrimination, for the differences in rates on different commodities are not all to be explained by differences in the direct cost of transporting them, but often by their respective abilities to pay more or less toward the indirect or overhead expenses. Here we are not dealing with discrimination in the broad sense of the word, but with unjustifiable discrimination between commodities, that is, discrimination which works an injury to shippers of the articles not given preferences. It will be noted that Section 3 prohibits only undue or unreasonable discrimination between commodities.

In cases relating to discrimination between commodities, as in discrimination between places, the issue is one of differences in rates and not of the rates themselves. Both the preferential and the prejudicial rate may be reasonable *per se*, and yet cause undue preference and prejudice.

⁸⁶ *Bunker Hill & Sullivan Co. v. Oregon-Washington R. R. & Nav. Co.*, 132 I.C.C. 266, 271 (1927). See also *Spreckles Savage Tire Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 142 I.C.C. 507, 512 (1928).

⁸⁷ See *Milburn Wagon Co. v. Lake Shore & Michigan Southern Ry. Co.*, 22 I.C.C. 93, 100-101 (1911); *North Fork Cannel Coal Co. v. Ann Arbor R. R. Co.*, 25 I.C.C. 241, 246 (1912).

COMMODITIES MUST BE COMPETITIVE

Generally speaking, for a finding of undue prejudice to be made, the commodities concerned must be competing commodities. This is because there can be no finding of undue preference or prejudice unless someone is positively injured by the relationship, and such injury generally arises because the producer of one of the products is unable to sell it in competition with the product granted favored rates. It is difficult to see how a producer of one commodity can be injured by low rates on a different commodity unless the two products compete with each other.⁸⁸ The necessity of a competitive relationship between the commodities is frequently pointed out by the Commission.⁸⁹

Cases in which an inequality in rates on different commodities has been found to result in undue preference and prejudice are numerous. Thus it has been found unduly prejudicial to maintain higher rates on zinc ammonium chloride than on sal ammoniac (both commodities being used for galvanizing).⁹⁰ It has likewise been found unduly prejudicial to have higher rates on benzol than on gasoline;⁹¹ on cotton-factory sweepings than on rags;⁹² on linseed oil than on cottonseed oil;⁹³ on bran than on middlings;⁹⁴ on lard substitutes than on lard;⁹⁵ on veneer than on lumber;⁹⁶ on gypsum hollow building tile than on clay hollow building tile;⁹⁷ on toasted wheat biscuit than on "Cream of Wheat";⁹⁸ and on cottonseed oil than on soybean oil.⁹⁹

The competition between two commodities, however, must be real. Findings of undue prejudice are often refused because of the lack of genuine and substantial competition between the commodities concerned. Flaxseed and grain do not compete; hence a disparity in rates

⁸⁸ Low rates on one commodity, if below out-of-pocket cost, would tend to burden other traffic, and hence might discriminate against it even though it is noncompetitive with the favored article. But such rates are unreasonably low under Section 1.

⁸⁹ *California Walnut Growers Assoc. v. Aberdeen & Rockfish R. R. Co.*, 50 I.C.C., 558, 568 (1918). See also *Boston Wool Trade Assoc. v. Boston & Albany R. R. Co.*, 78 I.C.C. 178, 183 (1923).

⁹⁰ 159 I.C.C. 475 (1929).

⁹¹ 156 I.C.C. 444 (1929).

⁹² 147 I.C.C. 740 (1928).

⁹³ 109 I.C.C. 721 (1926).

⁹⁴ 101 I.C.C. 14 (1925).

⁹⁵ 95 I.C.C. 171 (1925).

⁹⁶ 81 I.C.C. 227 (1923).

⁹⁷ 53 I.C.C. 46 (1919).

⁹⁸ 33 I.C.C. 534 (1915).

⁹⁹ 256 I.C.C. 89 (1943).

cannot result in undue prejudice.¹⁰⁰ Silica sand and common sand are not used for the same purposes; hence higher rates on the former than on the latter can work no injury.¹⁰¹ Cork board and "Celotex" compete to some extent, but the latter has great tensile strength and the former has not. Celotex can therefore be used for many purposes while cork board can only be used for insulating purposes. The field of competition is accordingly not great enough to permit a finding of undue preference or advantage.¹⁰² For the same reason, higher rates on "Cream of Wheat" than on flour were found not prejudicial to the former. The Commission found that the two commodities competed to some extent (in the making of pancakes and waffles), but otherwise their uses were distinct, and "Cream of Wheat" competed with other breakfast cereals rather than with flour.¹⁰³

ACTUAL INJURY FROM RATE ADJUSTMENT MUST BE SHOWN

It is not enough to show a competitive relation between two commodities in cases arising under Section 3. A finding of undue prejudice cannot be made unless there is proof that the rate relationship has been the source of actual injury to the complaining party in marketing his product. In one case it was found that a disparity in rates on roofing slate and roofing tile existed, but the Commission said: "It is not shown that the disparities in the rates have affected the movement of roofing slate or that the complainants have been damaged by reason of these disparities."¹⁰⁴ No finding of undue prejudice was made. The same point was brought out in a case involving an alleged preference in the rates on tin and copper to the disadvantage of aluminum. The Commission said: ". . . defendant's showing that the rate level on aluminum is higher than on tin and copper does not relieve complainant of the burden of establishing the fact of undue prejudice and preference. We can not conclude that it exists merely because the rates are different and there is some competition between the metals. There must be a further showing that the difference in rates has operated in some way to complainant's disadvantage in marketing aluminum. There is no such evi-

¹⁰⁰ *Archer-Daniels-Midland Co. v. Great Northern Ry. Co.*, 171 I.C.C. 192, 195 (1930).

¹⁰¹ *Illinois Sand Traffic Bureau v. Atchison, Topeka & Santa Fe Ry. Co.*, 152 I.C.C. 749, 753 (1929).

¹⁰² *Armstrong Cork Co. v. Akron, Canton & Youngstown Ry. Co.*, 136 I.C.C. 9, 14 (1927).

¹⁰³ *Cream of Wheat Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 91 I.C.C. 45 (1924).

¹⁰⁴ *Arvonnia-Buckingham Slate Co. v. Aberdeen & Rockfish R. R. Co.*, 174 I.C.C. 767, 769 (1931).

dence here and we accordingly find that the ratings and rates assailed are not unduly prejudicial or preferential.”¹⁰⁵ The principle was generalized somewhat in a more recent case: “. . . undue prejudice does not exist merely because rates are different and there is some competition between commodities. There must be a further showing that the difference has operated to complainant’s disadvantage in marketing its commodity. The character or intensity of the competition, [and] the specific effect of the rate relationship upon such competition . . . must be shown in addition to a difference in the rates.”¹⁰⁶

EXCEPTIONS TO THE RULE OF EQUALITY BETWEEN COMPETING PRODUCTS

It should not be inferred that competing products must always be given the same rate by a railway even when a difference in rates works a hardship upon shippers. Differences may be justified on at least three grounds.

DIFFERENCES IN COST OF SERVICE

The cost of transporting one commodity may be greater or less than the cost of transporting the competing commodity. Such differences in cost of service justify differences in the rate charged. Thus the rates on protected metal roofing and hard asbestos roofing need not be the same although the two products are competitive, since the weight density of asbestos roofing is greater than that of metal roofing. This justifies lower rates on the former.¹⁰⁷ Any other factor affecting relative cost of service¹⁰⁸ will justify a difference in rates on competing commodities, although very minor differences in cost are likely to be disregarded. When a difference is justified by differences in the cost of service, the difference in rates should be measured by the difference in cost. The Commission very frequently makes a finding of undue prejudice if the differences in rates exceed proper differentials.

DIFFERENCES IN THE VALUE OF THE ARTICLES

But cost factors are not the only ones that justify differences in the rates on competing commodities. A difference in the values of the two

¹⁰⁵ *Aluminum Co. of America v. Atchison Topeka & Santa Fe Ry. Co.*, 146 I.C.C. 363, 372 (1928).

¹⁰⁶ *Staley Manufacturing Co. v. Wabash Ry. Co.*, 167 I.C.C. 12, 15 (1930).

¹⁰⁷ *Robertson Co. v. Alabama Great Southern R. R. Co.*, 167 I.C.C. 693 (1930).

¹⁰⁸ For a list of such factors, see pp. 440-447, *supra*.

articles has also been held to justify a difference in rates. Thus, the Commission has said: "Value of the commodity transported is an important factor in the determination of . . . whether or not discrimination is undue."¹⁰⁹ The value of the commodity is thus considered as one of the "transportation characteristics" held to justify inequalities in the rates on competing articles.¹¹⁰

DEGREE TO WHICH THE ARTICLES ARE AFFECTED BY CARRIER COMPETITION

Another factor which may justify differences is the degree to which two articles are affected by competition between carriers. Competition sometimes forces a carrier to charge a low rate on one commodity, but competition may not apply with equal force to the rival commodity. At one time lower rates on apples than on citrus fruit from the Pacific Coast to eastern points were alleged to prefer unduly the producers of apples to the disadvantage of the producers of citrus fruits. The Commission found that the difference did not result in undue preference and prejudice, and pointed out among other things that the apples were subject to water competition via the Panama Canal and citrus fruit was not.¹¹¹ In another case the Commission pointed to the competitive forces applying to the transportation of flour and not applying to oatmeal as justifying a difference in rates.¹¹² Perhaps the most famous example of this principle arose in connection with the relationship in the rates on livestock and packing-house products. In 1905 the Commission ordered the carriers to discontinue charging higher rates on livestock than on packing-house products from Missouri River points to

¹⁰⁹ *Coke Producers Assoc. of Connellsville v. Baltimore & Ohio R. R. Co.*, 27 I.C.C. 125, 147 (1913). See also *Ogden Packing & Provision Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 101 I.C.C. 236, 252 (1925); and *Wrigley Jr. Co. v. Aberdeen & Rockfish R. R. Co.*, 161 I.C.C. 41, 44 (1930), where differences in value were considered in Section 3 cases.

¹¹⁰ The soundness of this rule from an economic viewpoint is open to question if followed as an invariable rule. The usual justification for higher rates on the more valuable commodities is that the greater value indicates greater ability to bear freight rates. But if two articles are truly competitive, the greater cost of one may indicate less ability to pay rather than more, since it must compete with a cheaper article. The higher rate adds to the handicap already suffered by the high-priced commodity in competing with the cheaper. But if the higher price is not an obstacle in the sale of the article, this objection does not apply.

¹¹¹ *California Grower's and Shipper's Protective League v. Southern Pacific Co.*, 100 I.C.C. 79, 105 (1925).

¹¹² *Atlas Cereal Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 89 I.C.C. 212, 218 (1924). For another example, see also *National Veneer & Panel Mfrs. Assoc. v. Aberdeen & Rockfish R. R. Co.*, 195 I.C.C. 411 (1933).

Chicago, because the existing relationship discriminated against livestock shipments.¹¹³ The order of the Commission was held invalid by the courts on the ground that there was no undue prejudice in view of the fact that keen competition between rival railroads had forced down the rates on packing-house products whereas no such competition had developed for livestock shipments.¹¹⁴

RAW MATERIALS AND FINISHED PRODUCTS

The raw material and finished product relationship, already described as a factor in determining the reasonableness of rates under Section 1, is involved in Section 3 cases. Raw materials and finished products are competitive, for the relationship in rates may determine the location of the industry, and that in turn will determine whether the raw material or the finished product is to be transported long distances. It is easy to see, therefore, that the relationship in the rates on a raw material and the corresponding finished product may discriminate against the producers located near the supply of raw material or those located near the market for the finished product.

Examples of undue prejudice arising from the raw material-finished product relationship are numerous. Thus the Commission has found that rates on sash doors and other items of millwork are unduly prejudicial to the extent that they exceed the rates on lumber,¹¹⁵ and that rates on cottonseed in excess of rates on cottonseed oil result in undue prejudice.¹¹⁶ More often perhaps, the rates on the finished product are the higher, but if the proper differential is exceeded it works an injury to the producers located near the raw materials. In one case the Commission limited the rate on malt to seven cents per hundred pounds over the rate on barley.¹¹⁷

When controversies over rate relationships arise between producers located near markets and those located near raw materials, the most logical solution of the difficulty would be to make the differences in rates conform to differences in the cost of service. When this is done the industry might well be left to migrate to the most advantageous location. This solution of the problem commends itself to one interested

¹¹³ *Chicago Live Stock Exchange v. Chicago Great Western Ry. Co.*, 10 I.C.C. 428 (1905).

¹¹⁴ *Interstate Commerce Commission v. Chicago Great Western Ry. Co.*, 141 Fed. 1003 (1905). Affirmed in 209 U.S. 108 (1908).

¹¹⁵ 78 I.C.C. 495, 522 (1923).

¹¹⁶ 26 I.C.C. 607 (1913).

¹¹⁷ 23 I.C.C. 378 (1912).

in the development of the most efficient methods of production. The Commission has shown a leaning to this view, and the prescription of differentials is governed largely by cost factors. In one of the early live-stock and packing-house product cases the Commission said: "We are of opinion that in the fixing of relative rates upon articles strictly competitive, as these are, the proper relation should be determined from the cost of the service."¹¹⁸ The Commission has not been able to adhere strictly to this position, and the other modifying factors mentioned above—value, and differences in the extent to which the two commodities are affected by competition of carriers—may affect a particular case. The court decision in the Chicago Live Stock case, above referred to, requires consideration of the latter factor at least.

DIFFERENTIALS NOT PRESCRIBED TO EQUALIZE COMPETITIVE ADVANTAGE

Although relative cost of service is not the only factor considered in prescribing nonprejudicial relationships between rates on raw materials and manufactured articles, it is definitely settled that the relationship ought not to be prescribed for the purpose of equalizing competitive advantage. Proper relationships may exist and one producer still have an advantage over another. But if so, the advantage of the one and the disadvantage of the other are due to factors other than a prejudicial rate structure. It is no function of the Commission to prescribe rates to offset a disadvantageous location. This point is well illustrated by a case involving the rates on rough quarried stone and on cut stone. Cut stone is building stone after it has been cut into the proper shapes and sizes for use in the construction of buildings. In this case the conflict was between those who cut stone near the quarries in Indiana and those who purchased the rough stone and cut it in Washington and vicinity where it was being used extensively. The maintenance of the same rates on cut stone as on rough stone was alleged to prefer the cutters in Indiana who could ship the cut stone as cheaply as the Washington cutters could get their raw material. But another factor entered into the competitive situation. There is an element of waste (about 10 per cent) in the process of manufacturing the dressed stone. This gave the producer near the quarries an additional advantage, since his competitors had to pay freight on a certain amount of waste. The question arose as to whether the disadvantage of the Washington manufacturers arising

¹¹⁸ *J. P. Squire & Co. v. Michigan Central R. R. Co.*, 4 I.C.C. 611, 626 (1891).

from the necessity of transporting a certain amount of waste material should be removed by the rate adjustment. The answer of the Commission was in the negative. ". . . it is our duty to remove that undue disadvantage and undue prejudice to complainants which is occasioned by freight rates, but we may not equalize any other advantages or disadvantages enjoyed or suffered by the parties. In order to remove the undue prejudice caused by the rate adjustment, and that adjustment only, the spread established between the rates on rough and dressed stone must be based upon their differences in transportation characteristics. Interveners are therefore correct in their contention that the relationship of the rates involved should not be based upon the amount of waste in dressing stone."¹¹⁹ A similar position was taken by the Commission very early in its history and has been consistently followed.¹²⁰ The Commission will remove only such disadvantages as arise from inequitable freight rates.

AMENDMENT OF SECTION 3 IN 1940

The Transportation Act of 1940 amended Section 3 by including "district," "territory," and "region" along with "person, company, firm, corporation, association, locality," etc., which might not be granted "undue preference or advantage" or be subjected to any "undue or unreasonable prejudice or disadvantage." The purpose of the amendment was to make certain that regional discriminations in the freight rate structure were brought within the scope of the section. It might be argued that the addition of the new words did not enlarge the Commission's powers, since a region, district, or territory may be considered as a locality or as an aggregate of localities, or, if "locality" is to be used in a narrow sense, any regional discrimination must necessarily discriminate against particular localities in the region and against particular persons, companies, firms, and corporations in the region. The Commission, however, has construed the amendments as broadening the scope of Section 3,¹²¹ and this view has also been taken by a Federal court.¹²²

SELECTED REFERENCES

References on discrimination under Section 3 are not very numerous. Probably the best brief discussions of Section 3 are in La Salle Extension University,

¹¹⁹ *O'Meara v. Baltimore & Ohio R. R. Co.*, 183 I.C.C. 3, 15 (1932).

¹²⁰ See the *J. P. Squire* case, note 118, *supra*.

¹²¹ *Class Rate Investigation*, 1939, 262 I.C.C. 447, 688-692 (1945).

¹²² *State of New York v. United States*, 65 F. Supp. 856, 871 (1946).

Traffic Management, Manual 47, ch. II, and *Manual 67*, chs. II and III (Chicago, La Salle Extension Univ., 1927, 1928). Section 3 is discussed by H. Hull in "Discrimination under the Act to Regulate Commerce," 51 *American Law Review* 166 (1917), and in "What Constitutes Unjust Discrimination in Railroad Rates," 24 *Case and Comment* 873 (1918). Some legal questions involved in the application of Section 3 are discussed in D. F. Cavers, "'Questions of Law' in the Lake Cargo Coal Rate Regulation," 37 *West Virginia Law Quarterly* 391 (1931), and by H. C. Mansfield in *The Lake Cargo Coal Rate Controversy* (New York, Columbia Univ. Press, 1932), ch. VII.

The policy of the Interstate Commerce Commission in local discrimination cases is discussed briefly in M. B. Hammond, *Railway Rate Theories of the Interstate Commerce Commission* (Cambridge, Harvard Univ. Press, 1911), ch. II, and in H. G. Brown, *Transportation Rates and their Regulation* (New York, Macmillan, 1925), pp. 244-261. Canadian policy receives some attention in W. T. Jackman, *Economics of Transportation* (New York, McGraw-Hill, 1926), pp. 370-392, and in D. A. MacGibbon, *Railway Rates and the Canadian Railway Commission* (Boston, Houghton Mifflin Co., 1917), pp. 134-194.

Interstate Commerce Commission policy in cases of discrimination between commodities is discussed in I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), pp. 527-538, and in cases involving discrimination between places on pp. 538-693.

CHAPTER XXII

LONG-AND-SHORT-HAUL DISCRIMINATION

LONG-AND-SHORT-HAUL discrimination is a special type of place discrimination. It consists in charging a larger aggregate sum for the transportation of persons or property for a shorter than a longer distance, when both hauls are over the same line, in the same direction, and the shorter is included in the longer distance. This type of discrimination has been the subject of much heated controversy and considerable confusion of thought. From the earliest days of railroad regulation there has been special legislation designed to prohibit such discrimination.

Long-and-short-haul discrimination may be illustrated by Fig. 41.

A	C	B
	\$1.25	\$1.00

FIG. 41.—Long-and-Short-Haul Discrimination.

If a railroad should charge a rate of \$1.00 per hundred pounds for transporting a certain commodity from A to B, and \$1.25 for carrying it from A to C, the carrier would be guilty of practicing the type of discrimination to which we refer. A similar discrimination would result if the rate from C to A was in excess of the rate from B to A.

This type of local discrimination is prohibited by Section 4 of the Interstate Commerce Act, known as the Long-and-Short-Haul Clause. Exceptions may be made in special cases by the Interstate Commerce Commission.

RELATION OF SECTION 4 TO SECTION 3

The relation between Sections 3 and 4 of the Interstate Commerce Act should be made clear. Section 3, as we saw in the preceding chapter, contains a general prohibition against local or place discrimination. The section prohibits only *undue or unreasonable* preference or advantage, and *undue or unreasonable* prejudice or disadvantage. The burden of proof is upon the complaining party to prove the unreasonableness of the discrimination. Section 4 prohibits a certain peculiar type of discrimination—long-and-short-haul discrimination—subject to such exceptions as the Interstate Commerce Commission may authorize. The theory

of the Fourth Section seems to be that long-and-short-haul discrimination is *prima facie* unjust. It is therefore made unlawful, and although exceptions may be made in particular cases by the Commission, the burden of proof is upon the carrier to show that the discrimination contemplated is justified.

The early prohibition of long-and-short-haul discrimination is to be explained largely by the fact that the practice seemed entirely indefensible and contrary to common sense. If it costs anything at all to move goods from C to B, in the diagram, why should the rates for the longer distance be less than for the shorter? This question was constantly asked in discussions of long-and-short-haul discrimination. The apparent absurdity, rather than any peculiar viciousness of this type of discrimination, played an important part in the early legislation on the subject.

In addition to this common-sense appeal in behalf of long-and-short-haul legislation, the shippers who were discriminated against voiced their opposition to the discriminatory practices of the railroads. We can imagine the residents of point C saying: "If the rates charged at B are abnormally low, it means that higher rates must be charged at C and other intermediate points; and if the rates at B are not abnormally low, but are only reasonable rates, then the rates at C are excessive, yielding the railroad more than a fair profit." Although this reasoning is not unanswerable it won many advocates to long-and-short-haul legislation.

MOTIVE FOR LONG-AND-SHORT-HAUL DISCRIMINATION

Before proceeding further it is necessary to understand why long-and-short-haul discrimination has existed so commonly. It should be noted, however, that an explanation of this practice is not necessarily a justification.

The explanation of long-and-short-haul discrimination, like the explanation of other forms of discrimination, is to be found in the nature of railroad expenses. The fact that a large proportion of a railroad's expenses are constant or overhead costs, which do not vary with the volume of traffic, provides the key to the explanation. The railroad rates at the intermediate point C may be reasonable, viewed in the light of all constant or overhead expenses. But if competition makes it impossible to carry traffic from A to B or from B to A at this rate, it is in the interest of the railroad to charge a rate low enough to get a share of

the traffic. As long as the through rate more than covers the extra or additional expenses of hauling the additional traffic, it contributes something to constant expenses, and the railroad is better off in carrying the traffic at the low rate than in not carrying it at all. Only when the through rate is forced so low as to make no contribution to indirect expenses does it become unwise for the railroad to carry the traffic. The situation explains why the discrepancy between the low through rate and the higher intermediate rate is often so great. At one time the rate on window-shade cloth from New York to San Francisco was \$1.00 per hundred pounds while from New York to Salt Lake City it was \$2.30. Rates from Chicago to Spokane, Washington, were at one time 80 per cent higher than to Seattle, hundreds of miles farther west.¹

OBJECTIONS TO LONG-AND-SHORT-HAUL DISCRIMINATION

We must now examine more critically the case against long-and-short-haul discrimination in order to determine to what extent the discrimination is objectionable, and to what extent it is justifiable. The criticism directed against this type of discrimination by the intermediate points rests upon two counts. The first objection is that it tends to increase the rates charged at the intermediate points. The low through rate is alleged to throw an additional burden upon the intermediate points. Expressed in another way, the railroad will make up the inadequate returns received from the very low through rate by increasing the rates at the intermediate points.

The second count against long-and-short-haul discrimination is that an intermediate point is at a disadvantage and cannot compete with the more distant point which receives preferential rates. The issue here is not of the unreasonableness *per se* of the intermediate rates, but a question of the relative rates. The producer or jobber at C is concerned because his competitor at B has the advantage of a lower freight rate and can undersell him. He would be as content to have the discrimination removed by increasing the rate at B as by lowering it at C.

The above objections to long-and-short-haul discrimination are sometimes valid; under other conditions they are not. We will first give an illustration of long-and-short-haul discrimination which is open to these objections.

¹ These illustrations and many others are given in Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), pp. 106-107.

CASE I.—DISCRIMINATION BY TWO COMPETING RAILROADS
OF APPROXIMATELY EQUAL LENGTH

Let us imagine two railroads, x and y , operating between A and B, but serving different intermediate points. Let us imagine further that the rates under a distance scale are \$1.00 on a certain article from A to C, and from A to D, and \$1.30 by both routes from A to B. The competition between the two railroads for traffic from A to B may soon cause one of the railroads to reduce the through rate to \$1.00. If by so doing it carries more of the through traffic between A and B it gains by the reduction. Its expenses are increased but little, but its revenues are increased considerably. Railroad y , however, will not stand by and allow traffic to be diverted to railroad x . So railroad y reduces its rates to \$1.00 and the traffic is again divided between the two roads. If rail-

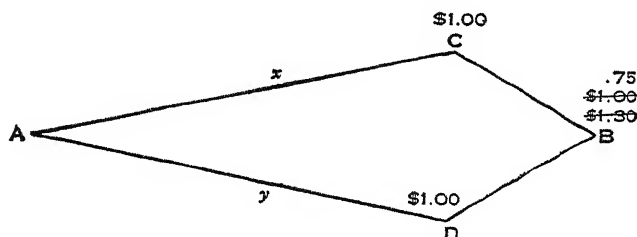


FIG. 42.—Unjustifiable Long-and-Short-Haul Discrimination.

road x institutes another cut in the through rate to \$.75 and again carries more than its normal share of the through traffic, a similar cut will likely be made by railroad y . As a result of these reductions the carriers are now guilty of long-and-short-haul discrimination. Are the two objections stated above valid in this case?

As to the first objection, we find that the railroads have not yet increased the rates at C and D, but since they are carrying the traffic from A to B at less than normal rates, earnings have probably been reduced. An attempt to increase earnings by increasing the rates at intermediate points where the railroad has a monopoly is only natural. There are two situations, however, in which the railroad would refrain from increasing the rates at the intermediate points. In the first place, the low through rate might possibly stimulate enough new traffic to offset the reduction in rates. By new traffic we do not mean traffic diverted from the other line, but refer to additional traffic stimulated by the low rates.²

² Low rates at intermediate points, of course, would stimulate new traffic equally well.

In the second place, there is the possibility of deriving less profit from the traffic at intermediate points if rates are increased. If the old rates were already at the point which yielded the greatest revenue above direct expenses, it would be poor business to increase rates further. But the above conditions do not necessarily exist. Our conclusion must therefore be that although the railroad may not find it desirable to increase the rates at intermediate points, the latter points have reason to fear that their burdens may be increased. In fact the situation may become worse as time goes on. The lower rates at B may stimulate its growth and the decline of C and D. Accordingly the traffic between A and B becomes greater but the traffic from A to C or D becomes less. Hence more and more traffic will be carried at the reduced rates and less and less at the higher rates. C and D may then be forced to pay still higher rates.

The second objection to discrimination of this type is also valid. Even if the rates at C and D are not increased, the maintenance of the old rates at these points, when B is charged lower rates, must operate to the disadvantage of the intermediate points. Jobbers and manufacturers at C and D are discriminated against and they cannot compete with their rivals who receive preferential rates.

From this illustration it is apparent that long-and-short-haul discrimination is objectionable, and that the intermediate points have just cause for criticizing rates built on this system. There are situations, however, in which the objections voiced by the intermediate towns do not apply.

CASE II.—DISCRIMINATION BY A CIRCUITOUS RAIL LINE

Railroad x forms a direct route between A and B. Railroad y is a circuitous route between the same points. Let us suppose that both railroads adopt a distance scale of rates, and that by railroad x the rate from A to C is \$1.00, and from A to B is \$1.25. By railroad y the rate from A to D might be \$1.40, and from A to B, \$1.50. Under these conditions all traffic between A and B will move via the direct route, unless the direct line is unable to handle all the traffic. The rate of \$1.50 charged by railroad y would be a "paper rate," that is, no traffic would move under it. If railroad y is to carry any traffic between A and B, it must be at a rate as low as is charged by railroad x . It sometimes happens that a circuitous line has to charge less than the direct line in order to divert traffic to the longer route. We will assume in the illustration that railroad y can carry a share of the through traffic if it meets the rate set by the direct line. If railroad y reduces its rate from A to B to

\$1.25, it is guilty of long-and-short-haul discrimination. Traffic moves from A through D to B and is charged \$1.25, but if it stopped at D it would have been charged \$1.40. Under these conditions has D a valid objection against the discrimination?

In the first place, will the low rate quoted by railroad *y* from A to B, result in a tendency to increase the rates at D? If the railroad should restore the old rate of \$1.50 no traffic between A and B would move via its lines. The entire burden of supporting railroad *y* would fall on traffic to or from intermediate points. If the railroad is permitted to reduce its through rate it will carry competitive traffic. If this rate covers more than the out-of-pocket expenses incurred in carrying the additional

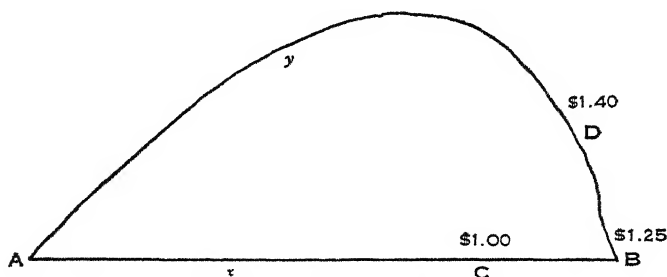


FIG. 43.—Discrimination by a Circuitous Line.

traffic, the through traffic is making some contribution to the overhead expenses and the railroad is better off than it was before. It is conceivable that as a result the local rates at D might even be reduced. Thus the discrimination against D may even be a benefit to it. The first complaint against long-and-short-haul discrimination does not apply in this case.

The second objection raised against the discriminatory rates is not so easily answered. The manufacturers and jobbers at D are not, as we have seen, so much interested in whether rates are \$1.25 or \$1.40, as they are in knowing that they and their competitors pay the same rate, whether it be \$1.25, \$1.40 or something else. Under the rate adjustment we have described, the people at B are getting lower rates than those at D. The fact of discrimination cannot be denied. In considering this situation we must examine two alternative methods of removing the discrimination against D. In the first place, the railroad might remove the discrimination by increasing the charge on goods it carries from A to B. But if it does so the disadvantage of D is not removed. The people

at B will still get their goods for \$1.25, but they will be shipped via the direct route. So if we force railroad y to observe the Long-and-Short-Haul Clause by increasing the rates at B we do not relieve the people at D. Point B still has its advantage over D. The other alternative before the carrier, if it wishes to remove the discrimination against D, is to reduce the rate at D to \$1.25, thus putting D and B upon an equal basis. But on what grounds can railroad y be asked to reduce its rate from A to D? The rate is, as we have seen, a reasonable rate resulting from the adoption of a distance scale, possibly the same scale that is applied on railroad x . The distance from A to D via railroad y is greater than the distance from A to B via railroad x . It is reasonable that the rate from A to D be higher than from A to B. No sound argument can be presented in support of compelling railroad y to reduce its rate from A to D. The unhappy fact is that D is handicapped by its location. Point D is farther from A than is B. Point B has the advantage of being located nearer A, and there is no good reason for depriving it of this advantage. Under these circumstances, then, the second criticism of long-and-short-haul discrimination by railroad y is not valid. It is assumed in the above case that the direct route between A and B maintains the standard rate. If the direct route began to cut rates our second illustration would be similar to the first, and the same objections would apply.

The fundamental differences between Case I and Case II, which justify the discrimination in the latter case and not in the former should be noted. In Case I the competitive point received a subnormal rate; in Case II, the competitive point receives a normal rate via the direct route. As a result of the situation just described, point B, in Case I, has an artificial advantage over the intermediate point—an advantage due wholly to the rate cutting of the railroads; but in Case II, point B has a natural advantage over the intermediate point—the advantage of being located nearer A.

It seems clear from the foregoing analysis that the intermediate points are not injured by long-and-short-haul discrimination on the part of a circuitous line competing with a more direct line. The direct line, however, and the shippers served by the direct line, may have something to say about the rate cutting by the circuitous line. The direct route loses traffic to the circuitous, and since the direct route is at less expense in hauling goods from A to B, it has reason to feel that it is entitled to the traffic. The shippers located on the direct line may also

have an interest in the matter. If the direct route handled all the traffic moving between A and B, shippers located along its line might get the benefit of even lower rates than is the case when the through traffic is divided with another line. Just as the shippers located on the circuitous line may benefit if the circuitous line is allowed to carry some competitive traffic, so the shippers located on the direct line may lose by the practice. This would clearly be the case if rates were adjusted to give each railroad a fair return, but since it is necessary to consider railroads as a whole or in groups when prescribing a level of rates, it probably makes little difference to the shippers on the direct route if some traffic is diverted to the other line.

Our conclusion regarding long-and-short-haul discrimination by a circuitous line is that the intermediate points are not injured, and the usual complaints directed by them against the discriminatory rates are not valid. The direct line between the competitive points is injured, however, by the discriminatory practice. Under some conditions the shippers located on the direct route may forego rate reductions that would be possible if the direct route could handle all the traffic between A and B.

CASE III.—DISCRIMINATION CAUSED BY WATER COMPETITION

A third case in which local discrimination is not injurious to the intermediate points may be worth brief attention. Let us imagine a direct line between A and B, two points which are subject to water competition. Let us imagine that under a distance scale of rates the rate from A to C on a certain article is \$1.00, and from A to B, \$1.25. The water rate between A and B, however, is only 80 cents. Under these conditions the railroad will seek to reduce the rate from A to B to 80 cents in order to compete with the water carrier. It might, of course, be unnecessary to reduce the rail rate to the level of the water rate owing to certain advantages in rail carriage, but for the sake of making our illustration as simple as possible, we will assume that the rail line must meet the water rate to divert a substantial amount of the traffic from the water lines. The reduction of the rail rate to 80 cents puts the railroad in the position of violating the prohibition against higher charges for shorter than longer hauls. Has the intermediate point just cause for complaint?

The case is substantially like Case II. Allowing the railroad to charge 80 cents at B does not tend to increase the charges levied on traffic at C.

In fact, the additional traffic carried by the railroad, if it makes some contribution to the general or overhead expenses, reduces the burden imposed on local traffic and might enable the railroad to reduce its rates at C. Hence the first objection to the discrimination does not apply. Neither will the second objection stand scrutiny. The disadvantage of C in paying \$1.00 while B pays only 80 cents is not removed by forcing the railroad to charge \$1.00 or more at B. The people at B will still get their goods from A for 80 cents, but they must get them by water. Neither can C reasonably ask for a reduction in its rates to 80 cents. The rate of \$1.00 at C is a normal rate. It is not unreasonable. The fact

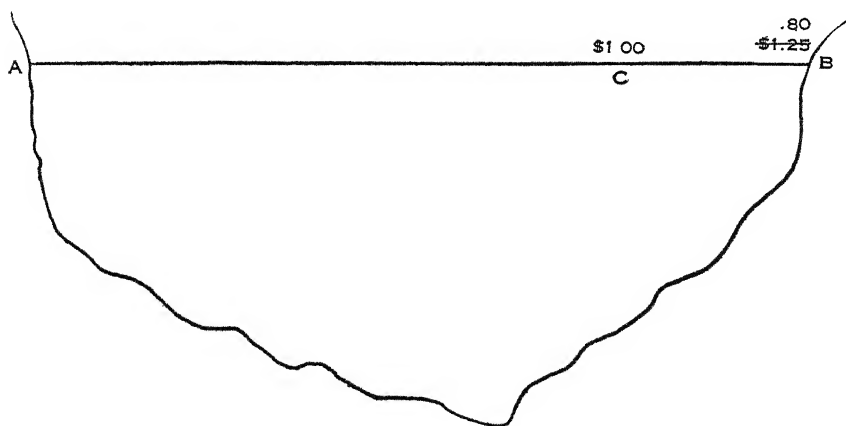


FIG. 44.—Discrimination Caused by Water Competition.

is that B is, economically speaking, nearer A than is C, and there is no reason for depriving it of its advantage of location. The real controversy in this case, as in Case II, is between two agencies of transportation. Permitting the railroad to meet the water rates aids the railway and injures the water lines. Requiring the railroad to avoid long-and-short-haul discrimination in this situation injures the railway and favors the water lines. A question of public policy is involved. If the public wishes to encourage water transportation it will restrict rate reductions designed to meet water competition. On the other hand, if the public finds that there is not traffic enough for both systems of transportation, and that the railroad provides service at intermediate points which a water line cannot, a policy will be adopted giving the railroad the through traffic. Circumstances will determine which course is the wiser to pursue.

We have not exhausted, by any means, the circumstances under

which long-and-short-haul discrimination does not injure the intermediate points. The above cases, however, are sufficient to demonstrate the test that is to be applied to determine the issue.

LONG-AND-SHORT-HAUL DISCRIMINATION AND ECONOMIC WASTE

Thus far in our discussion we have considered long-and-short-haul discrimination with reference to its effect upon the points discriminated against. Some mention was made also of its effect upon two other interested parties—the carriers which lose traffic, and the shippers they serve. But there is another and less vocal party interested in the practice—the general public.

Long-and-short-haul discrimination encourages wasteful transportation, and for this waste the public eventually pays. From a broad social point of view, therefore, it might be better to permit fewer exceptions to the Long-and-Short-Haul Clause. Two examples will serve to illustrate the point. When a circuitous line, like railroad *y* in Fig. 43, is granted permission to reduce its through rate in order to compete with the direct route, some of the traffic is being hauled by the less economical route. The actual outlay in labor costs, fuel, wear and tear on roadway and rolling stock, is increased. If railroads *x* and *y* were owned and operated by the government, or if they were consolidated into a single system, the folly of transporting goods a roundabout way from A to B would be apparent to anyone. It is just as wasteful if the roads are under separate ownership. If it chanced that the direct route was unable to handle all the traffic from A to B, and the circuitous route was incompletely utilized, it would probably be more economical to permit some of the traffic to move by the circuitous line than to build a second line parallel to *x* or to enlarge the facilities of *x*.³

Economic waste is also encouraged by granting relief from the Long-and-Short-Haul Clause on account of market competition. In 1924 the Interstate Commerce Commission granted certain carriers authority to establish rates on paper and paper articles from producing points in Wisconsin, Minnesota, and Michigan to New Orleans while maintaining higher rates to intermediate points.⁴ It seems that New Orleans could obtain its paper more cheaply by water from producing points in Pennsylvania, New York, New England, and Scandinavian countries.

³ See Brown, H. G., *Transportation Rates and Their Regulation* (New York, Macmillan, 1916), pp. 120-123.

⁴ *Paper and Paper Articles to New Orleans*, 88 I.C.C. 345 (1924).

New Orleans was therefore tributary to these latter producing areas. Wisconsin paper could not compete in the New Orleans market except by lowering the freight rates below what was reasonable to the various intermediate points. But if relief is granted here there is no reason why the carriers operating from New England to Chicago should not be granted relief to enable New England producers to invade the territory tributary to the Wisconsin producers. If extensive relief from the Long-and-Short-Haul Clause is granted on account of market competition there will be a large amount of unnecessary and uneconomical hauling of goods. This is what Commissioner Eastman had in mind when he said: ". . . the theory of market competition, if followed consistently, will inevitably lead to all manner of cross-hauling and wasteful transportation for which the country must in the end pay."⁵

HISTORY AND ADMINISTRATION OF THE LONG-AND-SHORT-HAUL CLAUSE

The foregoing analysis of long-and-short-haul discrimination should make more understandable the policy followed by the Interstate Commerce Commission in administering the Fourth Section. To the history and administration of the Long-and-Short-Haul Clause we will now turn our attention.

THE ORIGINAL LONG-AND-SHORT-HAUL CLAUSE

The Long-and-Short-Haul Clause as originally enacted read as follows: "That it shall be unlawful for any common carrier subject to the provisions of this Act to charge or receive any greater compensation in the aggregate for the transportation of passengers or of like kind of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, in the same direction, the shorter being included within the longer distance; but this shall not be construed as authorizing any common carrier within the terms of this Act to charge or receive as great compensation for a shorter as for a longer distance: *Provided, however,* That upon application to the Commission appointed under the provisions of this Act, such common carrier may, in special cases, after investigation by the Commission, be authorized to charge less for longer than for shorter distances for transportation of passengers or property; and the Commission may from time to time prescribe the extent to which such

⁵ *Ibid.*, p. 353. See also *Commodity Rates to Pacific Coast Terminals*, 107 I.C.C. 421, 439-440 (1926).

designated common carrier may be relieved from the operation of this section of this Act."

Two provisions in the Section should be noted. In the first place, the Long-and-Short-Haul Clause was not and is not today a rigid prohibition of long-and-short-haul discrimination, for the Commission is authorized "in special cases" to relieve the carriers from the operation of the Section. When the Act of 1887 was being debated in Congress, the House of Representatives desired to make Section 4 rigid, instead of granting the Commission power to make exceptions. The Senate, however, insisted on leaving a degree of flexibility in this part of the Act. This was wise, if our analysis of long-and-short-haul discrimination in preceding pages is correct. But Congress has from time to time seriously considered amending the Fourth Section to make its prohibitions absolute, and some States have rigid long-and-short-haul provisions.

The second point to be noted about the Fourth Section is that the prohibition against the higher charge for the shorter than for the longer distance applied only when the transportation for the shorter and longer distances was performed "under substantially similar circumstances and conditions." This phrase, as we shall see, was later removed.

The Interstate Commerce Commission, after the enactment of the Act of 1887, was called upon to interpret the provision of Section 4. Two points of view were presented. One view was that no higher charges for shorter than longer hauls could be made unless they were authorized by the Commission. The other view was that an order granting relief from the prohibitions of the Section was unnecessary if the circumstances and conditions existing in the transportation to through and local points were dissimilar. The Commission held that the latter interpretation was the proper one. This meant that the carriers could charge more for short than for longer hauls, but in case complaint were brought against them for violation of the Act, the burden of proof would be upon the carriers to show that circumstances and conditions were dissimilar.⁶ The Commission, however, undertook to point out certain conditions which constituted such dissimilarity of conditions and circumstances as to justify higher charges for shorter than for longer hauls. These were principally situations in which a railroad encountered competition from carriers which were not subject to the provisions of the statute.⁷

⁶ *In re Louisville & Nashville R. R. Co.*, 1 I.C.C. 31 (1887).

⁷ *Annual Report*, 1887, p. 84.

Section 4, as thus interpreted, was effective in eliminating many instances of long-and-short-haul discrimination. In 1897 the Commission said that there were practically no obnoxious rates of this sort except south of the Ohio and east of the Mississippi rivers.⁸

The carriers in the South, however, insisted on considering any form of competition which existed at the through points and not at intermediate points as creating a dissimilarity of conditions and circumstances such as to justify fourth-section departures without the specific approval of the Commission. The difficulty lay with the former interpretation of Section 4 by the Commission, which allowed the railroads to determine for themselves whether circumstances and conditions were dissimilar at the through and local points. To remedy this situation the Commission modified its former interpretation of the Section. The Commission now held that, unless competition was with lines not subject to the Interstate Commerce Act, dissimilarity of conditions and circumstances was a matter for the Commission and not for the railroads to determine.⁹ The Commission also steadfastly refused to admit that any and all forms of competition that might exist at the through points justified, as a matter of course, departures from the Long-and-Short-Haul Clause.

NULLIFICATION OF SECTION 4

The efforts of the Commission to restrict long-and-short-haul discrimination were brought to an abrupt halt in 1897 by the decision of the United States Supreme Court in the Alabama Midland Case.¹⁰ The Court held in this case, that any form of competition between carriers might create a dissimilarity of conditions and circumstances such that the prohibitions of Section 4 did not apply. It also held that the carriers could, in the first instance, decide for themselves whether circumstances were dissimilar or not, and that they need not wait for the Commission to grant relief from the operation of the Section.

The Commission maintained that this interpretation practically nullified the Long-and-Short-Haul Clause.¹¹ The Commission pointed out that the evil which the Section was intended to remedy was caused by the reduction of rates under the force of competition at certain points. Since it was competition which forced down the through rates, to hold

⁸ *Annual Report*, 1897, p. 41.

⁹ *Trammell v. Clyde Steamship Co.*, 4 I.C.R. 120 (1892).

¹⁰ *Interstate Commerce Commission v. Alabama Midland Ry. Co.*, 168 U.S. 144 (1897).

¹¹ *Annual Report*, 1897, p. 42.

that competition created a dissimilarity of conditions such that the Clause did not apply, made it impossible to apply the Section to the very situations which Congress desired to remedy. Practically every departure from Section 4 could be explained by dissimilarity of circumstances, and that which the Clause was designed to prevent would be lawful. From the date of this decision (November 8, 1897) until the Act was amended in 1910, the Long-and-Short-Haul Clause was a dead letter. Within five days from the Court's decision the Trans-Missouri Freight Bureau filed schedules increasing rates to intermediate points over more than 100,000 square miles of territory.¹² The impotence of the Fourth Section during the intervening period is shown by the fact that from 1906 to 1910 no applications were filed with the Commission for relief from the Section.¹³ The reason is plain. Departure from the Section could be practiced with impunity, for a dissimilarity of conditions and circumstances could almost always be shown.

Although the Commission declared in 1897 that the decision of the Court had reduced Section 4 to a nullity, some attempt was made to enforce it. In the Alabama Midland Case the Court had said: ". . . we do not hold that the mere fact of competition, no matter what its character or extent, necessarily relieves the carrier from the restraints of the third or fourth sections, but only that these sections are not so stringent and imperative as to exclude in all cases the matter of competition from consideration in determining . . . what are 'substantially similar circumstances and conditions.'" The Commission therefore made some attempt to distinguish between competition that did and competition that did not justify departure from the Long-and-Short-Haul Clause. But this attempt was not very successful. In one case that came before the Supreme Court language was used by the Court which seemed to go even further than in the Alabama Midland Case, for the Court said: ". . . it has been settled by this court that competition which is controlling on traffic and rates produces in and of itself the dissimilarity of circumstances and conditions described in the statute. . . ."¹⁴ Under this interpretation of the Fourth Section it was impossible to differentiate between unjustifiable discrimination as in our Case I, and discrimination of the justifiable sort as in Case II. Accordingly it may be

¹² *Ibid.*, p. 43.

¹³ *Administration of the Fourth Section*, 87 I.C.C. 564, 566 (1924).

¹⁴ *East Tennessee, Virginia & Georgia Ry. Co. v. Interstate Commerce Commission*, 181 U.S. 1, 12 (1901), referring to *Louisville & Nashville R. R. Co. v. Behlmer*, 175 U.S. 648 (1900).

truthfully said that the Alabama Midland decision rendered Section 4 nugatory.

AMENDMENTS OF 1910

Amendments to the Long-and-Short-Haul Clause in the Mann-Elkins Act of 1910 made Section 4 effective once more. This was accomplished by striking the phrase "under substantially similar circumstances and conditions" from the Act. The elimination of this phrase circumvented the holding of the United States Supreme Court in the Alabama Midland Case that competition at the through points and not at the intermediate points made the Clause inapplicable. As amended, the Clause prohibited the higher charges for shorter than longer hauls, ostensibly, at least, whether conditions were similar or not, and the carriers were thus deprived of the privilege of asserting that competition created a dissimilarity of conditions and circumstances. In the second place, the effect of striking out the troublesome phrase was to make the Long-and-Short-Haul Clause applicable unless and until the Commission granted relief from its operation.¹⁵ The Commission has primary control over long-and-short-haul discrimination. Its function is no longer a mere reviewing function.

Another amendment of 1910 permitted the railroads to maintain existing rates which were higher for shorter than for longer hauls if they were protected by applications for fourth-section relief filed within five months after the passage of the Act. A moment's consideration reveals the necessity for this provision. We have seen that the carriers paid little attention to Section 4 after the decision of the United States Supreme Court in the Alabama Midland Case. As a result, there were thousands of rates in existence in 1910 which were higher for shorter than for longer hauls. If the Long-and-Short-Haul Clause were suddenly made effective, it would be necessary to change all of these rates immediately, even though the discrimination might, in many cases, be of the type which the Commission considers as justifiable. This provision of the 1910 amendment permitted the existing departures to remain unchanged until the Commission had determined whether or not the rates should be brought into conformity with the Long-and-Short-Haul Clause. As a result of this provision of the law, the carriers, within the time authorized, filed 5,031 applications for relief from Section 4. Many of these applications involved thousands of rates in a

¹⁵ See *Intermountain Rate Cases*, 234 U.S. 476 (1914).

great many different situations.¹⁶ It was many years before the 1910 applications were disposed of. By 1936, however, they had all been taken care of except a few which involved a jurisdictional question with respect to international rates.¹⁷

GROUND FOR FOURTH-SECTION RELIEF

The grounds on which fourth-section relief is granted by the Interstate Commerce Commission should now be considered more fully. There are nine common situations which the Commission considers as justifying departure from the Long-and-Short-Haul Clause.

(1) Relief is granted to circuitous lines or routes which are in competition with more direct routes.¹⁸ This is the general situation described in Case II. In 1925 the Commission said that more than 90 percent of all authorizations for fourth-section relief came under this heading.¹⁹

(2) Relief is frequently granted to rail lines which are in competition with water routes.²⁰ This is the situation described in Case III, above.

(3) Relief is sometimes granted on account of commercial or market competition, or competition of directions. The case concerning the rates on paper and paper articles from Wisconsin and other points to New Orleans referred to above is a good illustration.

(4) Carriers which are in a poor financial condition and whose costs of operation are high are sometimes granted relief in order that they may meet the rates of stronger lines at the points where they come into competition. In cases of this sort the stronger line sets the rate, and the weaker line must meet it or lose traffic. The Tennessee Central railroad obtained relief on this ground in one case.²¹

(5) In recent years relief has been granted in many cases to permit railroads to compete with motor carriers.²²

(6) Relief has also been granted in numerous instances because of

¹⁶ *Administration of Fourth Section*, 87 I.C.C. 564, 567 (1924).

¹⁷ Interstate Commerce Commission, *Annual Report*, 1936, p. 103.

¹⁸ An illustrative case is *Class and Commodity Rate, from Pennsylvania*, 115 I.C.C. 331 (1926).

¹⁹ Report on the Gooding Bill. In *Hearings on Long and Short Haul Charges*. Committee on Interstate and Foreign Commerce, House of Rep., 68th Cong., 2d sess. (1925), p. 702.

²⁰ E.g., *Commodity Rates from Jacksonville to Miami*, 101 I.C.C. 347 (1925).

²¹ *Murfreesboro Board of Trade v. Louisville & Nashville R. R. Co.*, 73 I.C.C. 228 (1923).

²² *Cement from Hudson, N.Y. to Massachusetts*, 186 I.C.C. 8 (1932); *Brick in Southern Territory*, 241 I.C.C. 450 (1940).

pipe-line competition.²³ In some instances relief has been granted on coal to enable the railroads to meet the competition of natural gas at points served by pipe lines.²⁴

(7) Relief may be granted to carriers operating joint-line routes between points which are also served by a single-line route. This is done when joint-line arbitrators are allowed to points on joint-line routes. The maintenance of the higher rates where the joint-line routes come into competition with the single-line routes would drive traffic to the latter.²⁵

(8) Relief is sometimes granted a line handicapped by operating through intermediate-point territory which is given a higher rate level than the territory traversed by a competing line. In one case relief was granted to the carriers on the west side of the Mississippi River from St. Louis to Memphis and other crossings to maintain higher rates to intermediate points than at the crossings. The level of rates maintained in Western Territory was higher than that in Eastern and Southern Territories. At the crossings the west-side lines had to meet the rates of the east-side lines which operated in a lower-rated territory.²⁶

(9) Lastly, relief is sometimes granted to preserve a system of group rates. As we noted in an earlier chapter, there are many instances in the United States of rates which are made on a group or zone basis. The rates, in such instances, are the same to or from all points within a certain area. It sometimes happens, however, that one or more of the roads passes through points in a higher-rated group or zone before reaching a point in a lower-rated zone. It is sometimes very difficult to maintain group rates without this result. The granting of fourth-section relief in such cases prevents the disturbance of group rates.²⁷

In addition to these nine classes of fourth-section cases, relief of a temporary nature is sometimes granted in emergency situations or in situations that are temporary. In 1922 the existence of a drought in New Mexico resulted in the destruction of crops to such an extent that livestock was threatened with starvation. The Commission authorized the carriers to reduce rates on feed shipped into the region without re-

²³ *Petroleum and Its Products*, 183 I.C.C. 24 (1932); *Petroleum & Petroleum Products*, 245 I.C.C. 33 (1941).

²⁴ *Coal from Illinois, Indiana & Kentucky*, 192 I.C.C. 586 (1933); *Coal to Sleepy Eye & Springfield, Minn.*, 243 I.C.C. 227 (1941).

²⁵ E.g., *Memphis-Southwestern Investigation*, 77 I.C.C. 473, 522-523 (1923).

²⁶ *Memphis-Southwestern Case*, 80 I.C.C. 157 (1923).

²⁷ For an illustration see *Class and Commodity Rates between Western Points*, 104 I.C.C. 578 (1925).

ducing rates at intermediate points. Floods or other abnormal conditions often justify emergency relief of this sort. Temporary relief has sometimes been granted to stop traffic congestion by opening up additional routes of shipment.

AMENDMENTS OF 1920

The Transportation Act of 1920 contained three amendments to Section 4. To a considerable degree these amendments merely wrote into the statute policies which the Commission had commonly observed in the administration of the clause. As long as they were not written into the statute, however, they could be applied with flexibility, but incorporated into the law they deprived the Commission of discretion in their application. Each of the amendments requires brief explanation.

"REASONABLY COMPENSATORY"

In granting relief from Section 4, the Commission was required to see that the reduced through rates were "reasonably compensatory." This provision was clearly intended to prevent low through rates that would throw a burden on intermediate points. The term "reasonably compensatory" was construed in *Transcontinental Cases of 1922*.²⁸ The Commission held that to be reasonably compensatory rates must "(1) cover and more than cover the extra or additional expenses incurred in handling the traffic to which it applies; (2) be no lower than necessary to meet existing competition; (3) not be so low as to threaten the extinction of legitimate competition by water carriers; and (4) not impose undue burden on other traffic or jeopardize the appropriate return on the value of carrier property generally, as contemplated in section 15a of the act."²⁹ The Commission has quite generally denied fourth-section relief when the proposed through rates yielded less than 5 mills per ton-mile.³⁰ It is evidently considered that such rates contribute little, if anything, over out-of-pocket costs. Of course rates higher than this may also be considered less than reasonably compensatory if they do not conform to the other conditions set forth in the Commission's definition of "reasonably compensatory" as described above.

POTENTIAL COMPETITION

A second amendment in 1920 provided that the Commission was not to authorize a lower rate to a more distant point on account of

²⁸ 74 I.C.C. 48 (1922).

²⁹ *Ibid.*, p. 71.

³⁰ *Grain between River Ports on Illinois Central System*, 211 I.C.C. 379, 382 (1935).

"potential" as distinguished from actual water competition. There has been some difficulty in interpreting this requirement. When there is a substantial movement of commodities by water, there is no question but that the competition is actual. When water transportation facilities are available, but actual movement by water routes is absent or negligible in quantity, there is some question whether the competition is actual or merely potential. The Commission has held that an actual movement by water is not essential to make the competition actual. It is sufficient that facilities for such movement are readily available.³¹

Although the administration of Section 4 would break down completely if potential water competition, however remote, were permitted to justify fourth-section relief, there is some degree of absurdity in a rule which encourages investment in waterways, docks, and barges, merely for the purpose of bringing about a reduction in rail rates that cannot be lawfully accomplished until such investment is made. This is particularly true when the water transportation facilities may remain unutilized if the railroad reduces its rates when the competition becomes actual.

The statutory requirement that competition must be actual and not merely potential in order to justify fourth-section relief applies only to water competition. Logically, of course, the same rule should be followed when other types of competition are alleged to justify relief. The Commission recognizes this and has applied the principle where other forms of competition were encountered.³²

THE EQUIDISTANT CLAUSE

The third amendment to Section 4 made by the Transportation Act of 1920 came to be known as the "equidistant clause." It provided that when fourth-section relief was granted to a circuitous line competing with a direct line, higher charges should not be permitted at points at which the distances were not greater than the through distance by the direct route. To state the matter positively instead of negatively, higher rates than the through rate were to be confined to points at which the distances were greater than the through distance by the direct line. The situation can be illustrated by a diagram. In Fig. 45, the circuitous line might charge a higher rate from A to D than from A to B, since the

³¹ *Asphalt to Fulton and Arrowhead, N.Y.*, 238 I.C.C. 531, 534 (1940); *Plumbing & Electrical Materials from Sheboygan, Wis.*, 220 I.C.C. 264, 266 (1937); *Coke from Iron-
ton, Ohio, to West Henderson, Ky.*, 258 I.C.C. 669, 672 (1944).

³² *Coal from Illinois, Indiana & Kentucky*, 192 I.C.C. 586 (1933).

distance AD is greater than the distance AB by the direct route. If the distance AC were equal to the distance AB on the direct route, C could not be charged more than is charged from A to B. The equidistant

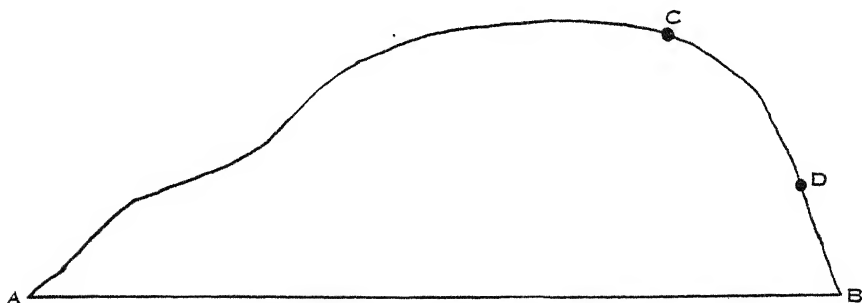


FIG. 45.—The Equidistant Principle.

clause, which has subsequently been repealed, was intended to hold down intermediate point rates and to confine discrimination to points where it could be clearly justified.

AMENDMENTS OF 1940

The Long-and-Short-Haul Clause was further amended by the Transportation Act of 1940. The amendments which need to be mentioned here are two in number.

The first amendment to Section 4 was a repeal of the equidistant clause. There had been some difficulty with the enforcement of this clause. The restriction applied only when relief was granted on grounds of circuitry. In order to avoid the limitations of the provision, carriers sometimes applied for relief on other grounds than circuitry although their lines were in fact circuitous. Frequently they based their plea on the necessity of preserving a group system of rates.³³ Another factor in bringing about the repeal of the equidistant clause was the realization that it was not strictly sound from an economic point of view. If operating conditions are more difficult on the circuitous line, or if traffic density is less, it may be proper to have rates at points on the circuitous route exceed the low through rate even at points at which the distances are less than the through distance by the direct route. The equidistant rule is sound only when transportation conditions on the two routes are alike in all respects save circuitry.

The repeal of the equidistant clause does not mean that the rule has

³³ See *Commodity Rates on Lumber and Other Products*, 151 I.C.C. 763 (1929).

been completely discarded. The Commission can, and frequently has, imposed the equidistant limitation since the 1940 amendment was passed, even though the statute no longer requires it.³⁴

A second amendment in 1940 permits the carriers to file, along with their applications for fourth-section relief, tariffs or supplements to tariffs containing the rates which are proposed to be made effective if fourth-section relief is granted. If fourth-section relief is granted by the Commission the new rates become effective on one day's notice. This enables the carriers to make competitive adjustments in rates more expeditiously, since it removes the delay caused by the former practice of waiting until fourth-section relief has been granted before filing the new rates and then being obliged to wait the statutory thirty days before they become effective.

APPLICATIONS FOR FOURTH-SECTION RELIEF

The conditions under which fourth-section relief is obtained, and the limitations imposed by law or by the Commission may now be summarized. This may be done by considering the points which must be established in every fourth-section application.

(1) It must be shown that the reduced rates are compelled rates, lower than reasonable rates for application via the petitioning line or route, and not within its control.³⁵ We have already discussed under nine headings the principal conditions which give rise to low through rates compelled by circumstances beyond the carrier's control.

(2) It must also be shown that the lower rates for the longer hauls are "reasonably compensatory." The meaning of the term "reasonably compensatory" has already been explained.

(3) The third point that must be established in order to obtain fourth-section relief is that the rates at the intermediate points are reasonable in themselves.

In addition to these general points common to all applications, there are special matters which must be shown if the applications are based on circuitry or on water competition.

If the application is based on circuitry, two facts must be established. First is the degree of circuitry. The Commission will not ordinarily consider a route circuitous that is less than 15 percent longer

³⁴ *Petroleum to Omaha, Des Moines & Winona*, 245 I.C.C. 689 (1941); *Dried Beans from the West to the Southwest*, 259 I.C.C. 439 (1945).

³⁵ *Fourth Section Order No. 8900*, 88 I.C.C. 765, 766 (1924).

than the short line. The degree of circuitry must not be too great, however. Not only does the through rate become less than reasonably compensatory over an extremely long route, but the transportation of goods by an extremely circuitous route is wasteful. The Commission very often restricts fourth-section relief to lines that are not more than 70 or 80 percent circuitous. In some cases the degree of circuitry permitted varies with the distance of the direct route. A typical case of this sort limited the degree of circuitry to not more than 70 percent when the distance by the direct route was 150 miles or less, to 50 percent when the direct route exceeded 150 miles but did not exceed 1,000 miles, and 33⅓ percent when the direct route exceeded 1,000 miles.³⁶ In other cases the Commission has limited relief to routes over which the proposed through rates would yield 5 mills per ton-mile or more.³⁷ The effect of such a limitation is to restrict relief to the less circuitous routes. Still other methods of restricting circuitry have been used.³⁸ The second fact to be established when an application is based on circuitry is that the short line is observing the Fourth Section. If it did not, the case would resemble Case I as described earlier in the chapter rather than Case II, and the discrimination could not be justified.

If an application is based on water competition, it must be shown that the competition is actual and not merely potential. We have previously referred to the Commission's interpretation of this requirement.

Fourth-section application may be denied, even when the foregoing points are established, if the Commission has reason to believe that the railroads would lose rather than gain by the proposed reduced rates.³⁹ This may happen if the increased revenues from traffic sought would likely be offset by the reduction in revenues from the traffic that would be carried anyway.

SECTION 500 OF THE TRANSPORTATION ACT

We have seen that fourth-section relief is commonly granted on account of actual water competition. Since 1920, the granting of relief on this account has been complicated by Section 500 of the Transportation Act. This section reads: "It is hereby declared to be the policy of Congress to promote, encourage, and develop water transportation,

³⁶ *Class and Commodity Rates from Pennsylvania*, 115 I.C.C. 331 (1926).

³⁷ *Export & Import Rates in Central Territory*, 219 I.C.C. 193 (1936).

³⁸ *Class and Commodity Rates in the South*, 191 I.C.C. 613, 620 (1933); *Western Trunk Line Fourth Section Class Rates*, 238 I.C.C. 255, 293 (1940).

³⁹ See *Transcontinental Westbound Automobile Rates*, 209 I.C.C. 549, 559-560 (1935).

service, and facilities in connection with the commerce of the United States, and to foster and preserve in full vigor both rail and water transportation."

What effect Section 500 has had on the administration of Section 4 of the Interstate Commerce Act is difficult to say with certainty. There are some cases in which it appears to have been a factor in denying railroads fourth-section relief to meet water competition.⁴⁰ In one of the transcontinental cases the Commission said that the enactment of Section 500 was "Congress' way of saying that we should follow a less liberal policy in dealing with departures from the long-and-short-haul rule than had been followed in former years."⁴¹ In another case, the Commission said: "... it clearly would defeat the intent of Congress to foster transportation by water as well as rail in full vigor if in any case rail carriers were permitted, at little or no profit to themselves, to operate so as to deprive water carriers of traffic which they now enjoy, and upon which their continued existence depends to some extent."⁴²

Notwithstanding these cases in which Section 500 seems to have had an effect on the administration of the Long-and-Short-Haul Clause, the Commission still grants relief to railroads to meet water competition in many cases, and has specifically said that fourth-section relief to enable rail lines to meet water competition is not inconsistent with Section 500.⁴³

RECENT CRITICISMS

The increased competition to which the railroads were subjected by waterway and highway carriers during the depression of the thirties led to a demand for the repeal or modification of Section 4. The railroads desired to reduce rates freely where competition was encountered without being required to obtain the approval of the Commission if fourth-section violation would result.

Bills to accomplish the virtual repeal of the Long-and-Short-Haul Clause have been introduced in Congress from time to time in recent years. One of these bills, known as the Pettengill bill, was passed twice by the House of Representatives. To enter into a discussion of the arguments for and against this measure would unduly lengthen the present

⁴⁰ *Transcontinental Cases of 1922*, 74 I.C.C. 48 (1922); *Sulphur to California Terminals*, 100 I.C.C. 369 (1925); *Commodity Rates to Pacific Coast Terminals*, 107 I.C.C. 421 (1926); *Consolidated Southwestern Cases*, 123 I.C.C. 203, 341 (1927).

⁴¹ *Transcontinental Cases of 1922*, 74 I.C.C. 48, 70.

⁴² *Tin Plate to Sacramento*, 140 I.C.C. 643, 647 (1926).

⁴³ *Citrus Fruit from Florida to North Atlantic Ports*, 226 I.C.C. 315, 327 (1938).

chapter. Although plausible arguments have been advanced in favor of the measure, the enactment of such a bill is considered by the writer to be unwise. It would be a step away from, rather than toward, a rate adjustment that would facilitate transport coordination. Transport coordination requires restriction of out-of-pocket-cost rate making, whereas the repeal or weakening of Section 4 would encourage that type of rate making. It is quite possible, however, that, even if the Long-and-Short-Haul Clause were removed, the Commission would be able under other provisions of the law, to maintain the present rate structure, although such is not the hope of the proponents of legislation like the Pettengill bill.⁴⁴

SELECTED REFERENCES

Long-and-short-haul discrimination is discussed in H. G. Brown, *Transportation Rates and Their Regulation* (New York, Macmillan, 1925), chs. IV and V; Eliot Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. VI; H. B. Vanderblue and K. F. Burgess, *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), ch. XI; and Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XX. The report of the Interstate Commerce Commission in *Administration of the Fourth Section*, 87 I.C.C. 564 (1924), and *Fourth Section Order No. 8900*, 87 I.C.C. 765 (1924) give a good insight into the Commission's policy. See also the Federal Coordinator's discussion of Section 4 in *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Sen. Doc. No. 152 (1934), pp. 66-72; and also *Fourth Report*, 74th Cong., 2d sess., House Doc. No. 394 (1936), pp. 58-59.

The most extensive study of the Long-and-Short-Haul Clause is Ralph L. Dewey, *The Long and Short Haul Principle of Rate Regulation* (Columbus, Ohio State Univ. Press, 1935). I. L. Sharfman, in *The Interstate Commerce Commission*, vol. III-B (New York, The Commonwealth Fund, 1936), intermingles the study of Section 3 and Section 4 cases involving place discrimination, pp. 542-625. Another analysis of Section 4 cases is "The Interstate Commerce Commission and Long and Short Haul Problem," 45 *Yale Law Journal* 1426 (1936). The Pettengill bill is discussed in Harold D. Koontz, "Transport Competition and Proposed Repeal of the Long-and-Short-Haul Clause," 46 *Journal of Political Economy* 153 (1938). On the Pettengill bill see also 75th Cong., 3d sess., Senate Report 1768, Parts 1 and 2 (1938). A challenging study of the administration of the Long-and-Short-Haul Clause which holds that the Commission "has usurped legislative powers in applying the Section is Calvin Crumbaker, *Transportation and Politics—A Study of Long-and-Short-Haul Policies of Congress and the Interstate Commerce Commission* (Eugene, Ore., Univ. of Oregon, 1940).

⁴⁴ Students interested in this bill should read the majority and minority reports of the committees of Congress which have considered the bill, particularly 74th Cong., 1st sess., House Report No. 1560 (1935); 75th Cong., 1st sess., House Report No. 360 (1937); 75th Cong., 3d sess., Senate Report 1768, Parts 1 and 2 (1938).

CHAPTER XXIII

RAILROAD ACCOUNTS AND ACCOUNTING REGULATION

CONTROL over railroad accounts is a prime essential in any attempt to regulate railroads. For this reason some attention must be given to the system of accounts prescribed for railroads by the Interstate Commerce Commission.

NECESSITY OF ACCOUNTING REGULATION

A glance at the various regulatory measures, such as are described in preceding pages, which have been undertaken by the Government in its attempt to control transportation agencies reveals a close relationship between the system of regulation and control of carrier accounts. The fair-return doctrine, for instance, assumes that the actual earnings of a company can be ascertained. The fair return contemplated by the law is a net return, and this means that operating revenues and expenses must be correctly stated. The determination of the fair value on which a return is to be allowed, in so far as it is affected by the cost of the property, requires a truthful statement of investment in road and equipment. There are many other regulatory measures which depend upon accounting regulation for their successful administration. Regulation of security issues would be largely impossible without reliable figures showing earnings, fixed charges, property investment, stock outstanding, bonds issued, floating debt, and other pertinent facts. Use is also made of accounts in considering applications for authority to abandon lines.

INCIDENTAL BENEFITS OF ACCOUNTING REGULATION

Although the regulation of carrier accounts is to be explained and justified by its relation to control of railroad rates and practices, it has other benefits of an incidental nature. A uniform and accurate system of accounts, such as is required by law, is of value to the carriers themselves. The railroads would have an accounting system adequate for their own needs in the absence of a system prescribed by regulatory authorities. Uniformity, however, would probably not be attained without government interference, and there is a distinct gain in a uniform system of accounting which makes comparisons between railroads possible.

Accounting regulation is also of advantage to the investor in railroad securities. It assures him of an accurate and trustworthy statement of earnings and of financial position. Before the days of effective accounting regulation carriers were all too often inclined to misrepresent their accounts, concealing earnings in some instances, and in others making an appearance of earnings where none existed. This practice can be stopped by effective accounting regulation. Incidentally, this result of accounting regulation redounds to the advantage of the public in general, for it eliminates the risk of misrepresentation in accounts and leads to the investment of capital in railroad enterprises on more favorable terms.

ESSENTIALS OF A PRESCRIBED SYSTEM OF ACCOUNTS

If we bear in mind the purpose of accounting regulation, it is clear that there are certain things which a system of carrier accounts should provide.

In the first place, the system should be uniform. The greatest confusion would exist if, for instance, the net income of one railroad was not comparable with that of another because of differences in the method of accounting. Railroad accounts should all speak the same language. This is why the Act of 1887 empowered the Interstate Commerce Commission to prescribe a uniform system of accounts for carriers subject to its jurisdiction. The accounting system now in effect is uniform, with minor exceptions. .

A second essential of a system of railroad accounts is a complete separation of carrier and non-carrier business. This is important because of the fair-value system of regulation. If a carrier is entitled to a fair return on the fair value of the property devoted to transportation purposes, that property must be separated from the other property and investments of the company. Similarly, the revenues derived from transportation business and the expenses incurred therein must be separated from other revenues and expenses. The carrier is not entitled to exact more than reasonable rates for the service of transportation to make up for unprofitable undertakings of a non-carrier sort or because of unprofitable investments in other businesses. Neither is a carrier to be deprived of a fair return from its transportation business just because it may have additional sources of income. A glance at the balance sheet and income statement prescribed by the Interstate Commerce Commis-

sion, as shown below, will indicate how thoroughly this separation of carrier and non-carrier business is brought about.

A third essential of accounting regulation is a careful distinction between expenditures which are chargeable to capital and those which are chargeable to income. Expenditures that represent investment in capital assets should be charged to the appropriate asset account. They do not enter into operating expenses or affect the net income at the time they are made. But expenditures which are properly expenses of doing business and which should be defrayed from current revenues should be charged to income and not to capital. A system of accounting must make the distinction between the two classes of expenditures definite. This is necessary to prevent manipulation of accounts and also to secure uniformity in accounting practice. In the past, carriers have frequently charged to capital what should have been charged as operating expenses, or have treated as operating expenses what should have been charged to capital. Earnings may be inflated or concealed according to the desire of management if this distinction is not made. But even when there is no desire to falsify returns, the distinction between the two types of expenditures should be insisted upon. This is because accounting practice may differ on different railroads, thereby destroying uniformity in accounts. Some carriers, for instance, might consider all replacements as an operating expense, even if the replacements were accompanied by betterment. Other carriers might carefully distinguish between that part of a certain expenditure which is a replacement in kind and that which represents an improvement and which may therefore be charged to capital. Or again, one carrier might follow the policy of charging replacements in kind to operating expenses even though the cost of the new property installed is higher than the original cost of the retired unit. Another carrier might charge the difference between the cost of the new unit and the cost of the retired unit to capital. Under the accounting classifications prescribed by the Interstate Commerce Commission all additions and betterments must be charged to capital. It was a common practice in the past for railroads to charge additions and betterments to operating expenses in good years. In the case of replacement with betterment, the accounting rules provide that the amount representing betterment shall be charged to capital account. The rule with respect to replacements in kind is very specific. When property is retired and replaced in kind, the ledger value of the retired property

is deducted from the property accounts and charged to operating expenses.¹ The cost of the new property installed is added to the appropriate property account. This means that if the cost of the new unit is greater than the original cost of the retired unit, the difference shows up in an enlarged property investment. Prior to 1914 the amount charged to operating expenses in connection with replacements was the cost of replacing in kind. This meant that if prices had risen the increase was absorbed in operating expenses, and property accounts were not affected. It is still true that with respect to small units of property, like ties and rails, the cost of replacement in kind is charged to operating expenses, regardless of changes in prices.

A fourth requirement of a prescribed accounting system is provision for an accurate statement of the property account. The accounting classifications of the Commission require that the property accounts shall show actual money costs to the carrier. When the consideration given for the purchase of property is other than money, the money value of the consideration at the time of the transaction is charged to the property account. If the property accounts are to show actual cost of the property in cash, it follows that discounts on stocks and bonds may not be included. It was customary, in the early days of railroading, to state the cost of the road in terms of the par value of securities issued to obtain the property, even though issued at a discount. Under present accounting classifications the discounts on securities issued appear in special accounts—"Discount on Capital Stock" and "Discount on Funded Debt." To have the property account show the cost of all property necessitates that additions and betterments be included, whether paid from the proceeds of security issues or out of current resources, and also that the excess cost of replacing property in kind over the cost of the property retired should appear in the account. The proper treatment of donated property in the accounts is a special problem arising from the extensive grants of right-of-way and other property to railroads. The accounting classifications require that donated land be entered in the property account on the basis of the estimated value at time of acquisition. Abandoned property should be written off if the property

¹ This is assuming no depreciation reserve has been set up. In the latter case part or all of the ledger value of the retired property is charged to depreciation reserve. If the amount to be charged to operating expenses on account of retirements is large it may, upon approval by the Interstate Commerce Commission, be charged to Profit and Loss.

account is to give an accurate statement of the cost of property devoted to transportation purposes. The accounting regulations require that a unit of property retired from service must be written out of the property accounts at once.

HISTORY OF ACCOUNTING REGULATION

Probably the earliest system of accounts prescribed for railways by public authority in the United States was that prescribed by the Massachusetts commission under authority of an act passed in 1876. The Federal Government did not enter this field of regulation until 1907. The original Act to Regulate Commerce empowered the Interstate Commerce Commission to require annual reports of the carriers in such form as it might prescribe. The Commission was also authorized to prescribe a uniform system of accounts. Although the Commission succeeded in obtaining annual reports from the carriers under this law, it made no attempt to prescribe a uniform system of accounting. The enforcement provisions of the law were weak. No penalties were provided in this section of the law, and the Commission was not empowered to investigate or audit the books of the carriers. Under these circumstances little would have been accomplished by prescribing a uniform system.

The Hepburn Act of 1906 enlarged the Commission's powers. Monthly and special reports, in addition to annual reports, might be required of the carriers. Penalties were provided for failure to make reports or for falsifying them. The carriers were required to keep accounts according to the Commission's specifications. The Commission was authorized to appoint examiners to inspect carrier accounts, and the courts were empowered to compel compliance with the accounting provisions of the Act by the issuance of writs of mandamus.

After the strengthening of the Act by these amendments the Commission proceeded to work out a uniform system of accounts. The Commission obtained the cooperation of the Association of American Railway Accountants, and in 1907 a system of accounting for rail carriers was prescribed. The system received major revision in 1914 and has been further modified and elaborated from time to time. The Commission in its annual reports to Congress has frequently complained, however, of inadequate appropriations and personnel for its Bureau of Accounts, which have prevented the Commission from doing as thorough a job of policing carrier accounts as is desirable.

GENERAL BALANCE SHEET

Following is the form of the General Balance Sheet Statement prescribed by the Commission. The numbers preceding the accounts are the account numbers used by the Commission. Footnotes explain briefly some of the accounts, the nature of which might not be apparent from the title.²

ASSET SIDE

Investments:

701.	Road and equipment property
702.	Improvements on leased property
702½A.	Acquisition adjustment ^a
702½B.	Donations and grants ^b
	Investment in transportation property ^c
702½C.	Accrued depreciation—Road
702½D.	Accrued depreciation—Equipment
702½E.	Accrued amortization of defense projects—Road
702½F.	Accrued amortization of defense projects—Equipment
	Investment in transportation property less recorded depreciation and amortization ^d
703.	Sinking funds
704.	Capital and other reserve funds
704½.	Maintenance funds ^e
705.	Miscellaneous physical property ^f
705½.	Accrued depreciation—Miscellaneous physical property
	Miscellaneous physical property less recorded depreciation
706.	Investments in affiliated companies
707.	Other investments
707½.	Reserve for adjustment of investment in securities ^g
	Total

Current Assets:

708.	Cash
709.	Temporary cash investments
711.	Special deposits
712.	Loans and bills receivable
713.	Traffic and car-service balances—Dr.
714.	Net balance receivable from agents and conductors
715.	Miscellaneous accounts receivable
716.	Materials and supplies
717.	Interest and dividends receivable
718.	Accrued accounts receivable
719.	Other current assets
	Total

^a When a carrier acquires by purchase, reorganization, or otherwise, a railroad as an operating entity the original cost of the property, actual or estimated, is charged to account 701, and the difference between the amount paid for the property by the acquiring carrier and the amount carried to account 701 is carried to this account.

^b Donations and grants in connection with construction or acquisition of property charged to accounts 701 and 702.

^c Accounts 701 and 702 less accounts 702½A and 702½B.

^d Investment in Transportation Property less accounts 702½C, 702½D, 702½E, and 702½F.

^e Funds set aside for maintenance which has been deferred because of priorities of materials and supplies, or shortage of labor.

^f Lands, hotels, mines, etc., not operated in connection with transportation service.

^g Reserves maintained to write off or to write down the value of securities carried in accounts 706 and 707.

² For more complete description of the balance sheet and income accounts see Interstate Commerce Commission, *Uniform System of Accounts for Steam Railroads, Issue of 1943*.

Deferred Assets:

720.	Working fund advances
721.	Insurance and other funds
722.	Other deferred assets
	Total

Unadjusted Debits:

723.	Prepayments
725.	Discount on funded debt
726.	Property retired chargeable to operating expenses
727.	Other unadjusted debits
728.	Securities issued or assumed—Unpledged ^b
729.	Securities issued or assumed—Pledged
754.	Discount on capital stock ⁱ
	Total

LIABILITY SIDE

Stock:

751.	Capital stock
752.	Stock liability for conversion ^j
753.	Premiums and assessments on capital stock ^k
	Total

Long-Term Debt:

755.	Funded debt unmatured
755½.	Debt in default
756.	Receivers' and trustees' certificates
756½.	Equipment obligations
757.	Amounts payable to affiliated companies
	Total

Current Liabilities:

758.	Loans and bills payable
759.	Traffic and car-service balances—Cr.
760.	Audited accounts and wages payable
761.	Miscellaneous accounts payable
762.	Interest matured unpaid
763.	Dividends matured unpaid
764.	Unmatured interest accrued
765.	Unmatured dividends declared
766.	Accrued accounts payable
767.	Taxes accrued
768.	Other current liabilities
	Total

Deferred Liabilities:

769.	Liability for provident funds
769½.	Interest in default
770.	Other deferred liabilities
	Total

^b Securities of the accounting company held as an asset by the company.

ⁱ Difference between the par value of stock issued and the amount received therefor.

^j Company's liability under agreements to exchange its capital stock for outstanding securities of other companies whose physical property has been acquired.

^k Premium on capital stock is the excess received for the stock over the par value.

Unadjusted Credits:

772.	Premium on funded debt
773.	Insurance reserves
774.	Maintenance reserves
778.	Other unadjusted credits
	Total

Surplus:

784.	Unearned surplus ¹
785.	Earned surplus—Appropriated
786.	Earned surplus—Unappropriated
	Total surplus

¹ Includes surplus arising from such sources as reduction in par values of stock, gains from acquisition or resale of the company's own stock, etc

INCOME STATEMENT

The form of the Income Statement prescribed by the Commission follows:

I. OPERATING INCOME

(A) Railway Operating Income:

501.	Railway operating revenues
531.	Railway operating expenses
	Net revenue from railway operations ^a
532.	Railway tax accruals
	Railway operating income ^b

(B) Rent Income:

503.	Hire of freight cars—Credit balance
504.	Rent from locomotives
505.	Rent from passenger-train cars
506.	Rent from floating equipment
507.	Rent from work equipment
508.	Joint facility rent income
	Total rent income

(C) Rents Payable:

536.	Hire of freight cars—Debit balance
537.	Rent for locomotives
538.	Rent for passenger-train cars
539.	Rent for floating equipment
540.	Rent for work equipment
541.	Joint facility rents
	Total rents payable
	Net rents ^c
	Net railway operating income ^d

^a Account 501 less account 531.

^b Net Revenue from Railway Operations less Railway Tax Accruals.

^c Difference between Rent Income and Rents Payable.

^d Railway Operating Income plus or minus Net Rents

II. OTHER INCOME

- 502. Revenues from miscellaneous operations
- 509. Income from lease of road and equipment
- 510. Miscellaneous rent income
- 511. Miscellaneous nonoperating physical property
- 512. Separately operated properties—Profit
- 513. Dividend income
- 514. Income from funded securities
- 515. Income from unfunded securities and accounts
- 516. Income from sinking and other reserve funds
- 517. Release of premiums on funded debt
- 518. Contributions from other companies
- 519. Miscellaneous income
- 520. Delayed income credits
- Total other income
- Total Income^e

III. MISCELLANEOUS DEDUCTIONS FROM INCOME

- 534. Expenses of miscellaneous operations
- 535. Taxes on miscellaneous operating property
- 543. Miscellaneous rents
- 544. Miscellaneous tax accruals
- 545. Separately operated properties—Loss
- 549. Maintenance of investment organization
- 550. Income transferred to other companies
- 551. Miscellaneous income charges
- 557. Delayed income debits
- Total miscellaneous deductions
- Income available for fixed charges^f

IV. FIXED CHARGES

- 542. Rent for leased roads and equipment
- 546. Interest on funded debt
 - (a) Fixed interest not in default
 - (b) Interest in default
- 547. Interest on unfunded debt
- 548. Amortization of discount on funded debt
- Total fixed charges
- Income after fixed charges^g

V. CONTINGENT CHARGES

- 552. Income applied to sinking and other reserve funds
- 546. Interest on funded debt
 - (c) Contingent interest
- Total contingent charges
- Net income after fixed charges and other deductions^h

^e Net Railway Operating Income plus Total Other Income.

^f Total Income less Total Miscellaneous Deductions from Income.

^g Income Available for Fixed Charges less Total Fixed Charges.

^h Income after Fixed Charges less Total Contingent Charges.

NET RAILWAY OPERATING INCOME

For purposes of rate regulation the item "Net Railway Operating Income" is the most significant item in the Income Statement. It is the "Net Railway Operating Income" that should represent a fair return

on fair value, if the reasonableness of the rate level is measured by the fair-return-on-fair-value standard. This figure, when related to the value of the property gives the rate of return actually earned by a railroad. It is impossible to compute this rate of return from the Income Statement and the Balance Sheet because the "fair value" on which a carrier is entitled to a return does not necessarily correspond to the amounts shown in the property accounts on the balance sheet. It is sometimes useful, however, to compute the rate of return earned on the book value, or on investment in road and equipment.

OPERATING RATIO

Analyses of railroad operations and earnings frequently make use of the "operating ratio." This is the percent of operating revenues absorbed by operating expenses. To obtain it, divide operating expenses (the second item in the income statement) by the operating revenue (the first item in the income statement), and multiply by 100. Thus, if operating expenses are \$8,000,000 and operating revenues are \$10,000,000, the operating ratio is

$$\frac{8,000,000}{10,000,000} \times 100 = 80.$$

In other words, 80 percent of the operating revenue is taken to pay operating expenses, and 20 percent is left for the payment of fixed charges and dividends and for other purposes. A low operating ratio is, therefore, a favorable indication, and a high operating ratio is an unfavorable one. The operating ratios of the railroads as a whole from 1920 to 1944 are shown in Table XXI.

The operating ratios of individual railroads vary greatly from those of the railroads as a system. In 1943 the operating ratio of all railroads as a whole was 62.54, but the New Orleans, Texas & Mexico had an operating ratio of 37.36, and the Detroit & Mackinac, 95.59.³

The operating ratio is valuable for purposes of comparing the operations of one year with another unless arbitrary variations in maintenance expenditures vitiate the comparison. The operating ratio is not of itself an indication of the financial condition of a carrier. A railroad with an unfavorable operating ratio may have a large income from other sources and have low fixed charges. On the other hand, a railroad with

³ The Canadian National lines in New England, and the Canadian Pacific lines in Vermont, had an operating ratio of over 100.

a low operating ratio may have no income from other sources or may even be suffering losses in outside operations, and it may also have heavy fixed charges. For these reasons the operating ratio is not a good index of the desirability of railroad securities as an investment. Of much greater significance to the prospective investor in railroad securities is the figure representing the number of times fixed charges are

TABLE XXI
OPERATING RATIOS, CLASS I, II, AND III RAILROADS, 1920-44.⁴

1920	94.36	1933	72.82
1921	82.89	1934	74.77
1922	79.48	1935	75.17
1923	77.88	1936	72.37
1924	76.24	1937	74.89
1925	74.17	1938	76.40
1926	73.23	1939	73.07
1927	74.65	1940	71.91
1928	72.57	1941	68.52
1929	71.85	1942	61.66
1930	74.56	1943	62.54
1931	77.10	1944	66.62
1932	77.06		

earned, or the figure showing earnings per share after the payment of fixed charges.

Even as an index of operating results, the operating ratio has important limitations. A railroad company may skimp on maintenance in times of low earnings and thereby obtain a favorable operating ratio at the expense of the physical property.⁵

DEPRECIATION ACCOUNTING

For many years, even after a system of accounts had been prescribed by the Commission, there was a great variation among carriers in the treatment of depreciation. The Commission had required the railroads to set up depreciation accounts for equipment, but there was no uniformity in the rates of depreciation used. This was not surprising, since differences in climate, in types of equipment, and in conditions of use would naturally result in different rates of depreciation. Differences in the rates of depreciation used, however, were greater than could be justified in this way. In its investigation of depreciation accounting the Commission found that steam locomotives had been given service lives

⁴ I.C.C., *Statistics of Railways*, 1944, Table 155.

⁵ For other limitations of the operating ratio, see Sakolski, A. M., *American Railroad Economics* (New York, Macmillan, 1913), pp. 213-217; and Bogen, Jules I., *Analysis of Railroad Securities* (New York, Ronald Press, 1928), pp. 275-276.

of from 4 to 55 years by different carriers. Wooden freight cars had been given service lives ranging from 3 to 60 years; steel freight cars, from 8 to 50 years; wooden passenger cars, from 5 to 66 years; and steel passenger cars from 5 to 50 years.⁶

On property other than equipment the railroads were not required to accrue depreciation until 1943, although the carriers had been permitted to set up depreciation accounting for such property if they wished. In general, however, the railroads preferred what is called "retirement accounting" as distinguished from "depreciation accounting." The distinction between depreciation accounting and retirement accounting should be made clear.

Depreciation accounting is based upon the theory that the cost of providing a service includes the cost of everything used up in the process. Such things as fuel, gasoline, lead pencils, and paper are used up in a short time, and are charged directly to operating expenses. Other things are used up slowly, such as locomotives, freight cars, buildings and other structures. The using up of this class of property is a continuous process extending over several accounting periods. The cost of this property ought therefore to be distributed over the service life of the property by periodic charges to operating expenses. These annual charges are accompanied by equal credits to depreciation reserve. By the time the particular piece of property is retired, its entire cost should have been charged to operating expenses, and the depreciation reserve should contain an equal credit.

Retirement accounting is somewhat simpler. When property is retired and replaced with new units the cost of the old is credited to the property account and charged directly to operating expenses while the cost of the new is charged to the property account affected. The advocates of the retirement system of accounting argue that retirements tend to equalize, becoming about the same year after year. For this reason, it is argued, there is no need for annual charges to operating expenses on account of depreciation. The property is maintained at 100 percent operating condition by the process of replacing property as soon as it is worn out.

Theoretically, the depreciation system of accounting is the better of the two. Property consumed in service should be charged to operating expenses as it occurs and not in a lump sum when the property is finally retired. The two methods of accounting, however, have about

⁶ 118 I.C.C. 295 (1926), pp. 336-337.

the same results in the long run, if retirements are, in fact, made at a uniform rate from year to year. But in practice there is rarely this uniformity in the rate of replacements. Since replacements may be delayed or speeded up, the sums spent on replacements do not measure the consumption of the property in service.

Whether the carriers should follow the depreciation system of accounting or the retirement system seems to have been settled by Congress. The Transportation Act of 1920 directed the Commission to prescribe the classes of property for which depreciation charges might properly be included in operating expenses, and required the Commission to prescribe the percentages of depreciation which should be charged for each class of depreciable property.

THE DEPRECIATION ORDER

In 1926 the Commission, seeking to comply with the mandate of the statute, prescribed the classes of property for which the carriers should be required to set up depreciation accounts.⁷ Opposition to the Commission's proposals resulted in reopening the case for further hearing. In 1931 the Commission modified its original order in several respects.⁸ The system of depreciation accounting prescribed became effective on January 1, 1935, except for road structures. For the latter, depreciation accounting became effective on January 1, 1943.

CLASSES OF PROPERTY DEPRECIATED

The original depreciation order of the Commission specified the various property accounts for which depreciation charges should be set up. The list included equipment and nearly all classes of fixed property. Land is not considered as depreciable; neither are the various engineering expenses incident to construction, nor such general expenses chargeable to cost of road as organization expenses, legal expenses during the construction period, and interest during construction. Depreciation accounts are not required for ties, rails, other track material, ballast, and some other property, because, although they are depreciable, replacements are normally spread fairly uniformly from year to year and can be adequately treated under the replacement system of accounting.⁹

⁷ *Depreciation Charges of Steam Railroad Companies*, 118 I.C.C. 295 (1926).

⁸ 177 I.C.C. 351.

⁹ Interstate Commerce Commission, *Annual Report*, 1943, p. 53.

STRAIGHT-LINE OR SINKING-FUND METHOD

The two most common ways of computing depreciation are the straight-line and the sinking-fund method. Under the straight-line method the cost of a piece of property is divided evenly over its estimated service life. If the property cost \$1,000 and has an estimated service life of 10 years, the annual depreciation charge (if we disregard salvage value) would be \$100. Under the sinking-fund method the annual depreciation charge would be less. It would be the sum which, if set aside each year at compound interest, would at the expiration of the service life of the unit of property equal its cost. Assuming the rate of interest to be 5 percent, the annual depreciation charge in the illustration above would be \$79.50.

The straight-line method of depreciation was adopted by the Commission because of its relation to the rate base. The courts have held that accrued depreciation is to be deducted in arriving at the rate base.¹⁰ This being so, the carrier is entitled to the interest received from the sums recovered through charges to depreciation. These sums represent capital returned to the company. Under the straight-line method, if a piece of property costing \$1,000 has lived half its service life, the carrier should have charged to operating expenses and recovered from the users of the service the sum of \$500. The carrier can invest this sum and derive income from it. Or the carrier may, if it chooses, use the \$500 for additions and betterments to its property, in which case it is entitled to earn a return upon the additional property investment. To use the sinking-fund method of depreciation with a depreciated rate base would be unfair to the carrier. It would, in our illustration, deprive the carrier of a return on the full \$1,000, on the theory that part of the amount has been repaid, but it would insist that the amount repaid was not the property of the stockholders but that it must be put at interest to make up the difference between the full cost of the property and the smaller amount which has been recovered through charges to operating expenses.

THE DEPRECIATION BASE

In its first depreciation order, the Commission required the carriers to compute depreciation charges upon the basis of the original cost of the units of property under consideration. This was in conformity with the usual accounting practice. Later the United States Supreme Court in

¹⁰ See p. 395, *supra*.

United Railways v. West, a public utility rate case, held that the annual depreciation charge should be based upon present values and not on the cost of the depreciable property.¹¹ In other words, it was not the original cost of a piece of property but its replacement cost that should be distributed over its life and charged to operating expenses.¹² This decision of the Court logically would have required a modification of the Commission's depreciation order if railroad accounts were to be kept in a manner consistent with the views of the Supreme Court. The Commission, however, refused to modify its original order on this matter. The Supreme Court subsequently repudiated the views on the depreciation base that had been expressed in the *United Railways* case, and has approved of the more common practice of using original cost as the depreciation base.¹³

RATES OF DEPRECIATION

The Commission did not attempt at first to prescribe the rates of depreciation for different classes of property, but left this largely to the carriers themselves. More recently, however, the Commission has prescribed for particular carriers the rates of depreciation to be applied to the various classes of depreciable property.

PAST DEPRECIATION

When the carriers make the transition from a system of retirement accounting to a system of depreciation accounting, they ought to set up a depreciation reserve account to show the depreciation already accrued upon their property. Only in this way would the accounts indicate the true status of the property. But to set up at once a depreciation reserve of this magnitude would seriously decrease or entirely wipe out the surplus of many railroad companies. The Commission therefore held, in the second depreciation case, that the depreciation reserve need be credited only with the depreciation accruing after the new system became effective. This means that the depreciation reserve will not represent the entire accrued depreciation in the property of the railroads until after the lapse of many years.

COST ACCOUNTING

The importance attached to cost of service in fixing rates on particular commodities and particular hauls suggests that railroad accounts

¹¹ 280 U.S. 234 (1930).

¹² See p. 341, *supra*.

¹³ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 606-607 (1944).

should be in form to permit the ascertainment of the cost of particular services. No system of keeping accounts has been prescribed which classifies expenses conveniently for general use in rate cases. Cost studies have played an important part in many rate cases, but these have always been special cost studies undertaken in view of the particular problem at hand. The matter of requiring accounts to be kept in a manner to disclose costs of particular services came to the attention of the Commission in 1929 in the hearings on the revision of carrier accounts.¹⁴ The subject was later investigated by the Federal Coordinator.

The nearest approach to cost-accounting methods in connection with the accounting classifications has been the separation of expenses between freight and passenger service. This was attempted very early in the Commission's history. From 1887 to 1894 the Commission required the carriers to divide their operating expenses between freight and passenger service. In 1894 the practice was abandoned. But in 1914 the Commission again required the apportionment of expenses between the two services.¹⁵ The practice has been continued to the present time. It undoubtedly serves a useful purpose but its limitations are obvious. Where expenses are incurred in common, any basis of apportionment is more or less arbitrary. For the year 1931 the expenses chargeable to passenger service were nearly 111 percent of the revenues from the service.¹⁶ This does not imply, however, that passenger fares were too low. In fact they may have been too high. Nor do the figures warrant the conclusion that the carriers would have been better off by abandoning the passenger service. Undoubtedly the revenues derived from passenger traffic covered out-of-pocket expenses assignable to passenger traffic and made some contribution to the other expenses. Too great importance should not be attached to apportionments of constant and overhead expenses in prescribing rates and fares. This point should be clear from the discussion of theory in Chapter VII.

Notwithstanding the limitations on the use of cost apportionments, it would be desirable to have more knowledge of the costs of providing particular transportation services. The problem of working out rate adjustments that will effect a greater degree of transport coordination and restrict each form of transport to the fields in which it is superior to others requires more information about costs than we have at the

¹⁴ *Ex Parte* 91.

¹⁵ 30 I.C.C. 676 (1914).

¹⁶ Interstate Commerce Commission, *Annual Report*, 1932, p. 29.

present time, even though the costs may be average costs and greatly affected by the degree of plant utilization.

SELECTED REFERENCES

The best source of information on railroad accounts is Interstate Commerce Commission, *Uniform System of Accounts for Steam Railroads, Issue of 1943* (Washington, Government Printing Office, 1943) and various supplemental orders of the Commission modifying the accounting system. History of accounting regulation and a description of the activities of the Commission's Bureau of Accounts is told in I.C.C. Bureau of Statistics, *Interstate Commerce Commission Activities, 1887-1937* (Washington, 1937), ch. VI.

Depreciation accounting is discussed at length by the Interstate Commerce Commission in *Depreciation Charges of Steam Railroad Companies*, 118 I.C.C. 295 (1926), and 177 I.C.C. 351 (1931).

The apportionment of expenses between freight and passenger business is considered in *In Re Separation of Operating Expenses*, 30 I.C.C. 676 (1914); and W. J. Cunningham, "The Separation of Railroad Operating Expenses Between Freight and Passenger Services," 31 *Quarterly Journal of Economics* 209 (1917). Railroad cost accounting is discussed in Harold D. Koontz, "Cost Finding for Railroads," 64 *Journal of Accountancy* 284 (1937); Arthur F. White, "Costs to Control Competition," 102 *Railway Age* 677 (1937); Federal Coordinator of Transportation, *Report on Cost Finding in Railway Freight Service for Regulatory Purposes* (Washington, 1936).

CHAPTER XXIV

RAILROAD FINANCE AND FINANCIAL REGULATION

THE issuance of securities by railroad companies has been regulated by the Federal Government since 1920. This chapter is concerned with railroad financial practices, and the policy of the Interstate Commerce Commission in regulating the security issues of railroad companies.

EARLY DEMAND FOR FINANCIAL REGULATION

The public has expressed an interest in railroad financial methods ever since railroads became important transportation agencies. Overcapitalization and stock-watering were the chief complaints in the early days. The Windom committee, which reported to Congress in 1874, asserted that no other abuses had "contributed so much to the general discontent and indignation as the increase of railway capital by '*stock-watering*' and '*capitalization of surplus earnings*.'"¹ The Cullom committee, reporting to Congress in 1886, also condemned prevailing practices in railway finance. The "pernicious practice" of stock-watering, said the committee, "has encouraged extravagance and corruption; has been made the means of swindling innocent investors out of millions of dollars; has promoted stock gambling; and, worst of all, has imposed a serious and continuous illegitimate burden upon commerce."²

RELATION OF CAPITALIZATION TO RATES AND SERVICE

It will be noted that the Cullom committee assumed that overcapitalization was reflected in higher railway rates. This was a common belief. The railroads, on the other hand, insisted that railroad capitalization did not affect rates and hence was of no concern to the shipping public. Neither side was wholly right. There is not the close relationship between capitalization and rates that the public often assumed. Neither is railway capitalization of concern to the company alone. Overcapitalization does affect railway service and may affect rates. This matter is important enough to demand further analysis.

¹ *Transportation-Routes to the Seaboard*, 43d Cong., 1st sess., Senate Report 307, Part I (1874), p. 72.

² *Report of the Senate Select Committee on Interstate Commerce*, 49th Cong., 1st sess., Senate Report 46 (1886), p. 51.

The relation of capitalization to service can be easily explained. The overcapitalized road finds the pressure to pay interest and dividends very great. It is inclined to resort to various forms of false economy in order to make these payments. There is a tendency to neglect maintenance and to make no provision for depreciation. As a result, the property gets into a run-down condition, and service is impaired. The overcapitalized road often finds difficulty in raising new capital. The company is in no position to sell stock if dividends are not paid. Borrowing is resorted to until the fixed charges become too great; then further borrowing is expensive or perhaps impossible. Thus the company is unable to make the improvements, additions, and betterments necessary to provide a high grade of service.

The relation of capitalization to rates is more complicated. Overcapitalization does not necessarily affect rates. Clearly it cannot if the overcapitalized road is competing with a conservatively capitalized one. The one which is excessively capitalized cannot charge higher rates than its rival. It may be argued, however, that the overcapitalized road may have a monopoly, or at least a considerable amount of noncompetitive traffic, and that in this situation overcapitalization may result in higher rates. But if a railroad can charge high rates because it is overcapitalized, it can charge just as high rates when not overcapitalized. A road will strive after the greatest amount of profits, overcapitalized or undercapitalized. It will charge the most profitable rates in any event, if regulation does not prevent it. In strict theory, therefore, there seems to be little, if any, relation between rates and capitalization. But one qualification must be made to this statement. In the struggle for funds to pay interest and dividends the overcapitalized road may follow a rate policy that is not best for itself in the long run. It may take a short-sighted view of things and charge high rates for immediate revenues even though this interferes with the future development of the region served. Hadley was careful to make this qualification to his general statement that capitalization does not affect rates.³

The discussion of capitalization and rates has thus far proceeded on the assumption that the railroads are free to make their own rates. In so far as regulatory bodies may alter rates additional factors must be considered.

When rates are based on "fair value" or on actual cost or prudent investment, the rate base is supposed to be unaffected by overcapitaliza-

³ *Railroad Transportation* (New York, Putnam's, 1885), pp. 121-122.

tion or by undercapitalization. In fact, the fair-value rule was evolved for the very purpose of preventing overcapitalization from resulting in higher rates to the public. Notwithstanding this fact, there is reason to believe that commissions have sometimes stretched valuations to cover securities outstanding.

When a credit standard of reasonableness is set up, such as has been suggested in recent Supreme Court decisions,⁴ overcapitalization may affect rates, since interest and dividend requirements have to be met if a railroad's credit is to be maintained.

Even when the fair-return-on-fair-value standard of reasonableness is used, and when the regulatory authority has not permitted overcapitalization to inflate the rate base, overcapitalization sometimes affects rates through its influence on the determination of a fair rate of return. A common test of a fair rate of return is whether or not it will attract capital to the industry, and in applying such a test consideration may be given to interest and dividend requirements.

Three motives are responsible for the leniency of commissions in sometimes permitting overcapitalization to affect rates. First is the hesitancy about forcing receivership and reorganization. No commission, even if a railroad is overbonded, likes to assume responsibility for throwing it into the hands of receivers, thus causing investors to take a loss in the subsequent reorganization. This motive can operate only when the company is overloaded with fixed charges, and not when the overcapitalization takes the form of excessive issues of stock.

The second motive is to protect the innocent investor. The securities outstanding, perhaps in large measure watered, are in the hands of innocent purchasers. They are held by savings banks, insurance companies, small investors, and educational institutions, all of which purchased the securities in good faith. The present holders are in no way responsible for the overcapitalization. Those who were responsible may be dead, or may have transferred their funds to the securities of other corporations. Denial of earnings necessary to pay a return upon the inflated securities will not injure those who were responsible for the inflation and have carried off their ill-gotten gains. The parties who will suffer from a strict regulatory policy are the present security holders.

The third motive that sometimes leads regulatory authorities to permit a return upon inflated securities is the desire to protect the railway's credit in order that adequate service may be rendered. We have

⁴ See pp. 351-352, *supra*.

already pointed out that overcapitalization may impair credit and result in poor service. This result can be avoided if a return is permitted sufficient to pay dividends upon inflated capitalization and to support the credit of the company. As between the two alternatives, high rates or poor service, the public will usually choose the former.

The obvious lesson from our discussion of rates and capitalization is that the overcapitalization should be prevented; for if it is not, the public will suffer poor service or pay higher rates than it should.

REASONS FOR OVERCAPITALIZATION

Light may be thrown upon the problem of overcapitalization by considering the way that it comes about. Very frequently it has its origin in the desire of promoters to reap large profits in the development or expansion of an enterprise. The construction-company device, elsewhere described,⁵ was largely for the purpose of enabling insiders to reap large profits from the promotion and construction of a railroad. It was a variation of the common practice of promoters to obtain property in advance which is to be sold to the corporation which they are promoting. The property is overvalued and transferred to the corporation for an equal amount of securities of the corporation. These securities are then sold to the public to enable the promoters to recover their original investment and reap the profits of promotion. Similar in principle is the overcapitalization resulting from paying excessive prices for other railroads during a consolidation. One of the causes of the New Haven debacle described by the Interstate Commerce Commission in 1913 and 1914 was the purchase of competing companies at excessive figures.⁶

Overcapitalization, however, does not always arise out of the desire of promoters or insiders to reap a profit at the expense of the corporation and the public. It may arise from the issuance of securities at a discount when there is no market for them at par. In an effort to prevent overcapitalization of this sort many States have prohibited the issuance of stock at less than par.

Overcapitalization often results from financial reorganizations. When a railroad company undergoes a reorganization it is usually necessary to reduce fixed charges. This is often accomplished by induc-

⁵ Pp. 115-118, *supra*.

⁶ *The New England Investigation*, 27 I.C.C. 560; *Financial Investigation of New York, New Haven & Hartford R. R. Co.*, 31 I.C.C. 32.

ing the holders of defaulted obligations to accept inferior types of securities in exchange for bonds having fixed interest requirements. To induce bondholders to accept these inferior securities—income bonds, preferred or common stock—it has sometimes been the practice to offer them securities whose par value exceeded that of the bonds which they were asked to surrender. Thus railroad companies have frequently emerged from a reorganization with a larger capitalization than they had before. This practice has been effectively stopped by Commission control of reorganizations under Section 77 of the Bankruptcy Act.

Sometimes overcapitalization results from prolonged financial difficulties which make it necessary for the carrier to borrow large sums of money to rehabilitate property that has not been properly maintained. Again, it may result from borrowing to pay operating expenses, unpaid interest, or other expenditures which are not properly capitalizable and which should have been paid out of earnings.

Whatever the cause of the overcapitalization, it has undesirable consequences. Overcapitalization should be carefully avoided, and if it has occurred, steps should be taken to eliminate it if possible.

DEVELOPMENT OF SECURITY REGULATION

Although the Cullom committee in 1886 was strong in its condemnation of railroad financial methods, it was not in favor of Federal regulation of railroad security issues. It believed that the States should exercise the necessary control, since railroad corporations were in almost every instance chartered by the States. States had already, in some instances, attempted such control. Massachusetts had statutory restrictions upon the stock and bond issues of railroads as early as 1852. Texas enacted a statute to regulate railroad securities in 1893. A number of other States enacted similar legislation in the nineties.⁷ By 1917 twenty-three States had some form of control over railroad security issues. There were twenty-five States, however, which had no form of control. Massachusetts, New York and Texas were the outstanding examples of strict control. The laws and policies of these three States, however, were very different.⁸

⁷ Barron, Mary L., *State Regulation of the Securities of Railroads and Public Service Companies* (reprinted from *Annals of the American Academy of Political and Social Science*, 1918), pp. 5-6.

⁸ The experience of these three States is described in some detail in Ripley, W. Z., *Railroads: Finance & Organization* (New York, Longmans, 1915), pp. 285-306.

Agitation for Federal control over security issues did not become very prominent until 1907. In that year the Interstate Commerce Commission concluded an investigation of the Union Pacific combination and the financial affairs of the Chicago & Alton under the Harriman regime. The Commission, in concluding its report, said: "The time has come when some reasonable regulation should be imposed upon the issuance of securities by railways engaged in interstate commerce."⁹ This recommendation was supported by President Theodore Roosevelt, and later by President Taft. President Taft's message to Congress in 1910 urged legislation to place railroad security issues under the control of the Interstate Commerce Commission. Congress did not follow the President's suggestion, but incorporated into the Mann-Elkins Act of 1910 a provision authorizing the President to appoint a special commission to investigate the desirability of such legislation. This body was known as the Railroad Securities Commission, sometimes called the Hadley Commission, since President Hadley of Yale University was chairman.

The Railroad Securities Commission rendered its report in 1911.¹⁰ It was opposed to Federal regulation of railroad security issues. The Commission was very critical of certain practices of the railroads, and it urged the States to impose rather stringent requirements upon financial practices and policies of railroad companies. The Hadley Commission found little public demand for Federal security regulation, and considerable opposition to it on the part of the railroads and financial institutions. The effect of the report was to discourage the movement toward Federal regulation, although the matter again came up in Congress in 1914. By 1919, when Congress was considering needed changes in railroad regulation, practically all opposition to Federal regulation of railroad security issues had ceased. Regulation of railroad security issues by the Interstate Commerce Commission was advocated by numerous groups.

SECTION 20A

The Interstate Commerce Commission's control over railroad security issues was brought about in 1920 by adding Section 20a to the Interstate Commerce Act. This section provides that no railroad subject to the Act, with the exception of certain electric lines, may issue new securities without first obtaining the approval of the Commission. The

⁹ 12 I.C.C. 277, 305-306 (1907).

¹⁰ 62d Cong., 2d sess., House Document 256.

Commission is given broad powers in passing upon these applications, and it may attach such terms and conditions to its authorization as it deems necessary or appropriate.

An exception is made to the general requirement in that short-term notes, that is, notes maturing in two years or less, may be issued without the approval of the Commission unless such notes, together with all other notes outstanding running for two years or less, aggregate more than 5 percent of the par value of all outstanding securities of the corporation. The exemption of short-term notes has been explained by the Commission as a recognition of the necessity of allowing the carriers a certain leeway, a freedom of action within prescribed limits, in the negotiation of short-term loans in order to enable them to meet current financial exigencies more quickly and easily.¹¹

The intent of Congress to establish the supremacy of Federal authority over State authority in the matter of security regulation is clearly indicated by the words of the Act. The authority of the Commission for the issuance of securities is required "even though permitted by the authority creating the carrier corporation." The Act further provides: "The jurisdiction conferred upon the Commission by this section shall be exclusive and plenary, and a carrier may issue securities and assume obligations or liabilities in accordance with the provisions of this section without securing approval other than as specified herein." The courts have held that State legislation relating to security regulation is no longer applicable. Thus the Wisconsin Supreme Court has said: "We cannot agree with counsel for the state that there is any language in this section which can be construed as . . . recognizing concurrent jurisdiction with the several states."¹² The Act, however, does give the States an opportunity to intervene in an application on behalf of the State or its citizens. When an application is filed with the Commission a copy must be sent by the Commission to the governor of each State in which the carrier operates, so that the State commission or other proper authority may make whatever representations it deems necessary.

The constitutionality of Section 20a has never been passed upon by the United States Supreme Court, but a lower court has upheld it.¹³

¹¹ *Pledge of Bonds of Baltimore & Ohio R. R.*, 67 I.C.C. 10, 11 (1921).

¹² *Minneapolis, St. Paul & Sault Ste. Marie Ry. Co. v. Railroad Commission*, 197 N.W. 352, 356-357 (1924).

¹³ *Pittsburgh & West Virginia Ry. Co. v. Interstate Commerce Commission*, 293 Fed. 1001.

OVERCAPITALIZATION AND STOCK-WATERING

One of the chief objects which the public had in mind in bringing about control of railroad security issues was the prevention of overcapitalization and stock-watering. It is necessary, therefore, to define those terms with more precision and to set up standards by which they are to be measured.

The terms "overcapitalization" and "stock-watering" are often used interchangeably. Although closely related they are not the same thing. Overcapitalization refers to the relation between the total assets of the railroad and its capitalization—stock and long-term debt. If the liabilities of the railroad in the form of capital stock and long-term debt exceed the value of the carrier's assets, there is overcapitalization. Stock-watering, on the other hand, refers to the dilution of the carrier's capitalization by issuing new securities without an equal increase in assets. Stock-watering often results in overcapitalization, but it does not necessarily do so. If a railroad issues new stock at less than par its liabilities are increased more than the assets. This would not result in overcapitalization, however, if the carrier had a substantial surplus before the new stock was issued. If the surplus was less than the discount on the stock issued, overcapitalization would result.

CAPITALIZABLE AND NON-CAPITALIZABLE ASSETS

We have defined overcapitalization as an excess of capital stock and long-term debt over the assets of the company, but a qualification must be made to that definition. In the regulating of security issues of railroads and public utilities, a distinction is usually made between capitalizable and non-capitalizable assets. Non-capitalizable assets are those not used for railroad or public utility purposes. The object of this distinction is to keep the carrier's capitalization down to the value of the property devoted to transportation purposes. This policy discourages but does not prevent the railroad from engaging in non-carrier activities. If a railroad is permitted to capitalize its investments in other undertakings, and these investments fail to yield the expected income, it may be difficult for the railroad to pay interest and dividends on its own obligations. The public would not be under any obligation to pay higher railway rates in order to overcome deficiencies in the railroad's income arising from the unprofitableness of outside investments, but the effect of the situation would be the same as if the railroad were overcapitalized, and its credit would suffer.

This situation is recognized by the Interstate Commerce Commission. "We should authorize the capitalization of those assets of the carrier only which have been provided and which are intended for continuing productive use in the service of transportation."¹⁴ Investments in non-railroad property are not capitalizable under the Commission's rulings. Investment in the stock of other railroad companies is a capitalizable asset only when "the carrier's holdings are sufficient and essential to give it control of that corporation and it appears that such control will probably be permanent."¹⁵ An exception is made to this rule if the affiliated company is a union station company, or a bridge or belt line owned by several different railways. Other securities held by a railway are not considered capitalizable except under special circumstances.¹⁶

VALUATION FOR PURPOSES OF CAPITALIZATION

To determine whether or not a carrier is overcapitalized, a valuation must be placed upon the capitalizable assets. This raises the question of the proper basis to use. Should it be investment, cost of reproduction, exchange value, or some other basis? The problem is not the same as the problem of valuation for rate-making purposes. Considerations which affect the choice of a rate base are quite different from those affecting the choice of a basis for capitalization.

Market value, or capitalized earnings, is sometimes set up as a standard of capitalization for industrial or commercial corporations. According to this standard a company is overcapitalized if it is unable to earn interest and dividends.¹⁷ On the other hand, it may expand its capitalization simply because earnings warrant it. Earning power is hardly a proper basis for use by railroads and public utility corporations, whatever may be said for its use in other types of businesses. The earning power of a railroad is what the public makes it by prescribing the rate level. If the public can reduce the earnings of a railroad to a fair return on the fair value of its property, it would hardly be proper to capitalize on the basis of greater earnings, since the public may at any time step in and reduce rates. On the other hand, it is diffi-

¹⁴ *Securities of Louisville & Nashville R. R.*, 76 I.C.C. 718, 720 (1923).

¹⁵ *Ibid.*, p. 723.

¹⁶ As when part of working capital, sinking funds, etc.

¹⁷ Wood, W. A., *Modern Business Corporations* (Indianapolis, Bobbs-Merrill Co., 1906), pp. 32-39; Lough, W. H., *Business Finance* (New York, Ronald Press, 1917), ch. VIII.

cult to accuse a railroad company of overcapitalizing its properties even when earnings are insufficient to support its capitalization if the capitalization represents funds actually invested in the property. There is one respect in which earning power does and should affect capitalization. When a railroad is unable, for economic reasons, to pay a return upon its capitalization, the capitalization should be brought down to what the earnings will support. But certainly it is not proper to charge a company with mismanagement and fraudulent inflation of its capitalization when the securities outstanding represent funds actually invested in the property, even if the enterprise is unable to earn the returns to which it is entitled.

The Interstate Commerce Commission has rejected earning power as the basis of capitalization: ". . . we do not consider the capitalized value of earning capacity as an appropriate basis for the issue of securities under the provisions of section 20a."¹⁸

Cost of reproduction is sometimes set up as the proper basis of capitalization. Whatever may be the merits of cost of reproduction as a rate base, it is not a satisfactory basis of capitalization. The chief objection to its use is that it fluctuates with the price level while capitalization cannot be easily changed, at least if a reduction is in order. Under the cost-of-reproduction basis a railroad which is conservatively capitalized at one time may be overcapitalized at another simply because of changes in the price level. This would imply that its capitalization should be scaled down. This is difficult particularly if indebtedness must be reduced.

Another possible basis of capitalization is rate-making value. It would seem reasonable to permit a carrier to issue securities to the amount of the value on which it was entitled to earn a return. But rate-making value has often been affected by cost of reproduction to a greater or lesser degree. If cost of reproduction is unacceptable as a standard of capitalization because of its fluctuating character, the same must be said of a rate-making value that is affected by cost of reproduction. Rate-making value is not objectionable as a basis of capitalization when it is based on actual cost or prudent investment, as will be shown below.

Actual cost is the basis most frequently used by commissions as a standard of proper capitalization. It has the following advantages. (1) It is stable. In this respect it differs from cost of reproduction.

¹⁸ *Grand Trunk Western R. R. Co. Unification & Securities*, 158 I.C.C. 117, 134-135 (1929). See also *Chicago Junction Case*, 71 I.C.C. 631, 637 (1922).

Actual cost is an historical fact, changing only as investment in the property changes. (2) The actual-cost basis is in accordance with the theory of the law that par values represent the amount put into the property by investors. This argument assumes, of course, that reinvested earnings represent reasonable earnings withheld from stockholders—an assumption which is usually justified.

Three disadvantages to the use of the actual-cost basis are advanced. First, it is argued that actual cost cannot always be ascertained, either because records have been destroyed or because they are not truthful. We have already discussed this argument when considering actual cost as a rate base. The same answer can be given here. As time goes on, the figure for actual cost can be found for a larger and larger portion of railroad property as old units of property are replaced with new ones. Even if it is necessary to resort to estimates, original cost can be estimated as easily and as accurately as cost of reproduction can be estimated.¹⁹

A second objection to the use of actual cost is that it may have been excessive, through fraud or extravagance such as commonly accompanied railroad building when construction companies were utilized.²⁰ But this objection is easily answered. Where extravagances and fraud are detected, allowance can be made for this fact.

A third objection to the actual-cost basis is that it may result in an appearance of excessive earnings even though earnings do not exceed a fair return on the "fair value" of the property. This situation arises when rate-making value is based upon cost of reproduction or largely affected by it, and cost of reproduction is higher than actual cost. The objection is not a serious one, and it can be met by the counter-argument that the public is entitled to know what return a company is earning on the actual investment.

Of the various bases of valuation for the purposes of capitalization, actual cost is to be preferred, even though a different basis may be used at the same time for rate-making purposes. The Interstate Commerce Commission is inclined to this view. "We have held in a number of cases that the amount of a carrier's actual investment, not the value of its property, should be the measure by which to determine the amount of securities that may be issued by the carriers."²¹

¹⁹ See p. 378, *supra*.

²⁰ See pp. 115-117, *supra*.

²¹ *Roscoe, Snyder & Pacific Ry. Co. Securities*, 170 I.C.C. 403, 407 (1931).

ARE OUR RAILROADS OVERCAPITALIZED?

From time to time the charge has been made that American railroads are overcapitalized. In the years during which the public was endeavoring to bring railroads under government control, belief in the existence of overcapitalization was general. The charge was undoubtedly justified during the period of railway expansion and for some time thereafter. In fact, some individual railroads may be overcapitalized at the present time. Taking the railroads as a whole, however, the charge that they are now overcapitalized is not justified by the facts if we set up investment in railroad property as the standard of capitalization. Overcapitalization of the past has been eliminated by reorganizations and by the reinvestment of earnings. The Federal Coordinator of Transportation presented figures bearing on this question in 1934.²² The Commission's Bureau of Valuation estimated the original cost of railroad property, plus the value of carrier land as of June 1, 1933, plus an allowance for working capital, as about \$26,232,000,000 on December 31, 1932. Original cost of carrier land is not known, but it would be less than the value in 1933. The Coordinator, after allowing for this fact, arrived at \$24,000,000,000 as the investment in railroad property. On December 31, 1932, the total capitalization of the carriers was \$23,573,556,588. If we deduct the intercorporate holdings to avoid duplication, the net capitalization outstanding in the hands of the public was \$19,489,062,256. This shows a capitalization considerably less than the investment in railroad property.

Although the railroads as a whole are not overcapitalized on the basis of investment, they may be so on the basis of earning power. The point has been made previously that when a railroad is unable, for economic reasons, to pay a return upon its capitalization, the capitalization should be brought within the earning power of the company. This raises the question whether inability to support the existing capitalization of the railroads in the period prior to World War II was due to permanent changes in the transportation situation which had made a large part of the railroad plant obsolete, or whether inability to support capital structures was only a temporary situation brought about by the depression of the thirties. If the rise of new forms of transportation has created a situation in which the railroads will not be able in the postwar period to support present capital structures, then financial

²² *Regulation of Railroads*. 73d Cong., 2d sess., Senate Doc. No. 119 (1934), p. 3.

reorganization is in order even if present capitalization is less than the investment in railroad properties.

OVERCAPITALIZATION AND REGULATION

Regulation of security issues may be an effective means of preventing overcapitalization in the future. Cases in which the Interstate Commerce Commission has denied or limited the issuance of securities in order to avoid overcapitalization are numerous.²³ Regulation, however, cannot easily bring about the elimination of such overcapitalization as already exists. New issues of securities cannot be denied on account of overcapitalization if they are to be issued for the purpose of raising funds for needed improvements. To do so would often make improvements impossible. In a number of cases, however, the Commission has denied authority to issue new securities when the proceeds were to be used to reimburse the carrier's treasury for capital expenditures already made therefrom.²⁴ By this means the Commission may aid in eliminating any overcapitalization that existed before the capital expenditures were made. In effect, this policy is to require the carrier to make capital expenditures from earnings, rather than from the proceeds of security issues, until overcapitalization is eliminated. The policy cannot be relied upon to eliminate much existing overcapitalization, because if it came to be the policy of the Commission the carrier would not use its current resources for capital expenditures.

Reorganization cases present the best opportunity for seeing that overcapitalization is eliminated. As will be pointed out below, the recent financial reorganizations under Section 77 of the Bankruptcy Act have resulted in substantial reductions in the capitalization of the railroads involved.

STOCK-WATERING OPERATIONS

The Interstate Commerce Commission is not only interested in preventing overcapitalization; it is also interested in preventing the issuance of securities in larger amounts than necessary. It has sought to prevent stock-watering, i.e., the issuance of securities without a commensurate

²³ *Securities Application of Detroit & Toledo Shore Line R. R.*, 70 I.C.C. 322 (1921); *Securities Application of Apache Ry.*, 71 I.C.C. 245 (1922). For other illustrations and some exceptions as well, see Locklin, D. P., *Regulation of Security Issues by the Interstate Commerce Commission*. University of Illinois Studies in the Social Sciences, vol. XIII, No. 4 (1927), pp. 64-68.

²⁴ E. g., *Securities of St. Louis-San Francisco Ry.*, 79 I.C.C. 92 (1923), 79 I.C.C. 323 (1923).

increase in assets. A consideration of some of the financial operations that come before the Commission will indicate the Commission's policy.

NEW CONSTRUCTION, ADDITIONS, AND BETTERMENTS

Stock-watering may result from new construction or from making additions, in two different ways. Excessive prices may be paid for the construction, such as often happened when construction companies were used, or expenditures may be capitalized which are not properly chargeable to capital account. The Commission has often prevented the capitalization of expenditures which were not properly chargeable to investment in road and equipment under the accounting classifications.²⁵ The Commission has also objected to new issues of securities for construction work when the prices paid for the work seemed excessive.²⁶

CONSOLIDATION AND COMBINATION

Stock-watering and overcapitalization have often resulted from consolidations and acquisitions of control through stock-ownership. The Commission has endeavored to prevent this by control over the security issues.²⁷ It has also, under its power to prescribe terms and conditions in granting authority for railroads to unify their properties, restricted the price to be paid for such properties.²⁸

SALE OF SECURITIES BELOW PAR

The sale of securities below par constitutes stock-watering because the liabilities of the company are increased without a corresponding increase in the assets. A distinction must be made, however, between the issuance of stock at less than par and the sale of bonds at a discount. Both constitute "stock-watering" as we have defined it, but the two situations are different. If a 20-year thousand-dollar bond is sold for \$900, the carrier increases its assets by \$900 and its liabilities by \$1,000. When the bond matures the carrier must pay back \$1,000. But if the discount on the bond is amortized, as the accounting classifications require, the discount disappears by the time the bond matures and hence the fictitious element in the capitalization also disappears. The discount, in reality, represents deferred interest. Discount on capital stock, however, remains as a permanent excess of liabilities over assets, unless

²⁵ E.g., *Bonds of Virginian Ry.*, 71 I.C.C. 383 (1922).

²⁶ *Sewell Valley R. R. Notes*, 79 I.C.C. 177 (1923).

²⁷ E.g., *Nicholas, Fayette & Greenbrier R. R. Co., Acquisition*, 180 I.C.C. 80 (1931).

²⁸ E.g., *Aroostook Valley R. R. Co. Control*, 180 I.C.C. 275 (1932).

eliminated by appropriations from income or surplus for that purpose, or in some other way.²⁹

Because the sale of stock below par is stock-watering, it has been forbidden by the laws of many States. The prohibition has been evaded in various ways, and has led to the growing practice of issuing no-par stock, or of reducing the par value of stock when it is desired to issue new stock that cannot be issued at the old par. Although carriers should not issue stock below par when it can be issued at par, it is a mistake to prohibit the issuance of stock for less than par. This prohibition has often forced railroads to finance new capital requirements by issues of bonds when it would have been preferable to have issued stock even at a discount. If a railroad's stock will not sell at par, to prohibit the sale of stock at less than par prevents financing through stock issues.

STOCK DIVIDENDS

Stock-watering may occur through the issuance of stock dividends. By stock dividends we mean dividends payable in stock of the corporation. The term should not be confused with the payment of ordinary cash dividends on stock. Although stock dividends have, in the past, sometimes represented purely fictitious issues to satisfy stockholders when earnings would not permit the payment of cash dividends, the type of stock dividend with which we are concerned here is that which represents reinvestment of earnings in the corporation. Instead of paying out all earnings in the form of dividends, the corporation may retain part of the earnings which are then invested in additions and betterments.

Technically, the issuance of stock dividends is stock-watering, for no consideration is received for the stock issued. Actually, however, consideration was received before the stock was issued, because earnings were retained in the business instead of being paid out as dividends. The transaction is not essentially different from the distribution of all earnings in the form of dividends, and the sale of new stock to finance further capital requirements, so far as its effect on capital structures is concerned. If earnings are withheld and reinvested, however, the stockholders are forced to contribute new capital, whereas, if all earnings are distributed as dividends, and new stock is offered for sale, many stockholders would not subscribe to new shares.

If the premise is accepted that the earnings of the company, regard-

²⁹ For the various ways of eliminating discount on capital stock, see Interstate Commerce Commission, *Uniform System of Accounts for Steam Railroads*, Issue of 1943, p. 30.

less of their relation to a fair return, may be distributed to the stockholders in the form of dividends (and such is the view of the courts), it follows that there can be no objection to the issuance of stock dividends *per se*. The only objection that can be made is that it may weaken the carrier's credit and its ability to sell stock at par when new capital is again needed. The payment of a stock dividend reduces the market value of each share of stock outstanding, because it reduces the equity behind each share. The issuance of stock dividends may therefore impair the carrier's ability to raise new capital by sale of stock in the future, at least on favorable terms.

It is sometimes argued that the denial of the right to issue stock dividends when earnings have been reinvested denies the stockholders compensation for their sacrifice. But the rights and interests of stockholders are in no way increased by the payment of a stock dividend. They are deprived of no right, property, or interest by refusal to permit the stock dividend. If stock dividends are issued the stockholder can of course convert his new shares into cash, but he no longer has the same proportionate interest in the company as before, and he could have accomplished the same result by selling part of his old shares which have increased in value because of the reinvestment of earnings.

If a stock dividend does not change the position of the stockholders, nor give them any rights that they did not have before, it may be wondered what motives lead to the issuance of stock dividends. There are several answers to this question.

First, the stockholders may receive some gain because the total market value of his shares may be increased. This may sound strange in view of the fact that the total equity of stockholders is not increased by the stock dividend. If the company continues the same dividend rate on the increased number of shares, however, the total market value of the stock will rise. Furthermore, stocks tend to sell at more nearly their real value as represented by the equity behind them if the real value is not much above par. Par value is erroneously set up by investors as a mark of intrinsic worth, and they will purchase stock more quickly below par than above.³⁰

A second motive for issuing stock dividends is to facilitate consolidation. Shares of stock can be more easily exchanged on a par for par basis. But this is not equitable if market values of the shares vary. The

³⁰ This motive played a part in a stock dividend issued by the Delaware, Lackawanna & Western R. R. See brief of the D. L. & W. in Finance Docket No. 65, pp. 11-12.

market values of the stock of the stronger corporation can be brought down to par by the issuance of stock dividends. This was one of the motives in the South Georgia stock-dividend case.³¹ The motive is often mixed with the first one mentioned above. If the terms of the exchange of shares in a consolidation are determined largely by the relative market values of the stocks of the consolidating companies, the terms will be more favorable to a strong company if it first increases the total market value of its shares by issuing a stock dividend.

Another motive for stock dividends is to enable cash dividends to be paid out less conspicuously, thereby avoiding the belief that rates are excessive. Issuing a stock dividend increases the dividend base and enables the same sum to be distributed as dividends at a smaller rate per share. Before regulation was effective the carriers may have concealed excessive earnings by this practice. Under our present regulatory system earnings cannot be concealed so easily, but if the value for rate-making purposes is large and the dividend base is small because of a small capitalization, earnings may appear excessive when, in fact, they are not. This motive appeared in a stock dividend of the Lake Superior & Ishpeming Railroad where dividends as high as 50 percent had been paid.³²

Stock dividends may also be issued to reduce the ratio of bonds to stock. The laws of some States forbid the investment of trust funds or the resources of savings banks and insurance companies in bonds of companies which have too large a ratio of bonds to stock. If this ratio is exceeded, a company may reduce the ratio by issuing a stock dividend. Of course this procedure is somewhat ridiculous because a railroad is obviously not in a stronger financial position after the issuance of the stock dividend than before. In fact, it is in a less favorable position, but the bonds may become eligible for investment by insurance companies and savings banks when they were not before. This motive has appeared in a number of stock-dividend cases that came before the Commission.

The policy of the Interstate Commerce Commission has been to permit the issuance of stock dividends, but only when a substantial surplus would remain uncappeditalized.³³ Stock dividends have been denied when

³¹ 86 I.C.C. 713 (1924).

³² 131 I.C.C. 331 (1927).

³³ See *Stock of Chicago, Burlington & Quincy R. R.*, 67 I.C.C. 156 (1921); *Stock of Delaware, Lackawanna & Western R. R.*, 67 I.C.C. 426 (1921); *Richmond, Fredericksburg & Potomac Dividend Obligations*, 79 I.C.C. 465 (1923).

the uncaptialized surplus would be too small.³⁴ In other cases the Commission has endeavored to maintain an adequate surplus by reducing the amount of stock that could be distributed as a dividend.³⁵ Between 1920 and 1945 the Commission authorized stock dividends to an amount exceeding \$203,826,000.

SALE OF SECURITIES THROUGH COMPETITIVE BIDDING

The Commission has been interested in having the carriers obtain the best possible price for new issues of securities. It has been the common practice of the carriers in the past to float issues of new securities through one of the large firms of investment bankers with whom they had been accustomed to deal, without attempting to resort to competitive bidding. In 1926 the Commission adopted the policy of requiring competitive bidding in the sale of equipment-trust obligations.³⁶ Later, competitive bidding was required in the sale of bonds of a terminal company.³⁷ In 1943 the Commission instituted a general investigation into the subject of competitive bidding, and as a result of the investigation it announced in 1944 that competitive bidding would be required as a condition of its approval of the sale of new securities. The rule does not apply to sales of common and preferred stock, and there are other exceptions.³⁸

CONTROL OF INDEBTEDNESS

Early railroads in the United States were financed largely by stock issues, but the practice became general of raising a substantial portion of the capital by the sale of bonds. In 1943 the long-term debt of the railroads was about 57 percent of the total capitalization. The proportion of total capitalization in the form of long-term debt varies greatly, however, on individual railways. Table XXII shows the distribution of 127 Class-I railways according to the proportion of total capitalization in the form of long-term debt in 1943.

The tendency for railroads to make bonds a large proportion of their capitalization has certain undesirable consequences. First, a railroad with a heavy indebtedness and large fixed charges is in danger of receivership or trusteeship in lean years. This danger leads to under-

³⁴ *Proposed Stock Issue by Pere Marquette Ry.*, 131 I.C.C. 304 (1927).

³⁵ *Stock of Missouri-Illinois R. R.*, 131 I.C.C. 467 (1927).

³⁶ *Western Maryland Equipment Trust*, 111 I.C.C. 434 (1926).

³⁷ *Indianapolis Union Ry. Co. Bonds*, 166 I.C.C. 723 (1930).

³⁸ *In re Competitive Bidding in Sale of Securities*, 257 I.C.C. 129 (1944).

maintenance and skimping to avoid default. If default cannot be warded off, the carrier must go through the process of receivership or trusteeship and reorganization. Second, the credit of a company suffers as the burden of debt increases. The rate of interest on further borrowing becomes high, and it is difficult to maintain the stock at par. The weakened credit position of the carrier prevents the raising of new capital for additions and betterments. Third, a large proportion of bonds in the capitalization promotes concentration of control and irresponsibility in management. For these reasons students of railroad finance have long deplored the tendency for the ratio of bonds to total capitalization to increase.

TABLE XXII

DISTRIBUTION OF RAILWAYS ACCORDING TO PROPORTION OF TOTAL CAPITALIZATION IN THE FORM OF LONG-TERM DEBT
(Dec. 31, 1943)³⁹

Proportion of Total Capitalization in Long-Term Debt	Number of Carriers
0	7
0.1—9.9	2
10.—19.9	1
20.—29.9	6
30.—39.9	10
40.—49.9	24
50.—59.9	25
60.—69.9	27
70.—79.9	10
80.—89.9	6
90.—99.9	9
	<hr/> 127

There are a number of reasons for the large proportion of borrowed capital among railroad companies.

(1) The use of bonds enables the carrier to tap certain sources of capital that could not be reached if only stock were sold. Savings banks, insurance companies, and trustees are not permitted by the laws of most States to invest in common stocks of corporations, but only in bonds. Then there are many individuals and institutions seeking safety of principal in their investments and regularity of income therefrom. Railroad bonds can be sold to this class of investors when stocks could not.

(2) Borrowing a portion of the capital needed for railroad purposes is profitable to the stockholders. If a railroad company sees an opportunity to invest a certain sum in additions or improvements that will

³⁹ Computed from data in Interstate Commerce Commission, *Statistics of Railways in the United States*.

earn the company 10 to 12 percent on the additional investment, it is obviously to the benefit of the stockholders to borrow the capital at 5 or 6 percent.

(3) The legal obstacles in the way of issuing stock at less than par force railroads, as we have seen, to finance by bond issues when their earnings are not sufficient to enable stock to be sold at par.

(4) The use of bond issues, particularly of the collateral-trust type facilitates railroad combination. A carrier seeking to obtain control of another can finance its purchase of stock by selling collateral-trust bonds. The security behind the bonds can be the stock which has been purchased or is to be purchased.

(5) Retention of control of other lines is made easier if subsidiaries are financed largely by bond issues. If the new capital requirements were to be financed by stock issues, the controlling company would have to take part of the shares to retain control of the company; but if bonds are issued, the controlling company will not have to put up additional funds.

A review of these reasons for the tendency of railroads to borrow a large proportion of their capital reveals that management is partly at fault but not wholly so. Unwise State laws, the notions of investors, and a low level of railway earnings have contributed to the situation which has developed.

A number of devices have been used in the attempt to limit the indebtedness that railroads may incur. One device has been to fix a ratio of bonds to stock that may not be exceeded. In many States the proportion has been fixed by statute.⁴⁰ In other States regulatory commissions have prescribed the ratio which may not be exceeded. A common requirement has been that the indebtedness should not exceed the capital stock; another is that it should not exceed two or perhaps three times the capital stock. Banking interests often prescribe ratios of bonds to stock that may not be exceeded if the bonds are to be considered for investment purposes, and we have already mentioned that similar restrictions are put upon the investments of savings banks, insurance companies, and the like by State laws. This method of limiting indebtedness has not been very satisfactory. The ratio of bonds to stock, or to total capitalization, is not a good measure of the debt burden. A comparatively high ratio may not be objectionable if the total capitalization is small compared to the investment in the property. Prescribing arbitrary

⁴⁰ See Barron, Mary L., *op. cit.*, pp. 14-16.

ratios of bonds to stock may also lead to measures which comply with the letter but not with the spirit of the limitation, such as reducing the ratio by issuing stock dividends.

A better method of limiting indebtedness is to prescribe a ratio of bonds to investment in the property. But there are objections to this standard. The relation of debt to investment does not measure the burden on earnings created by the indebtedness. The rate of interest on the bonds, and the earnings of the company, must be considered to determine the real burden.

This suggests that the best method of controlling indebtedness is to relate fixed charges to earnings. A limitation of this sort, however, requires the determination of an uncertain element, namely, the probable earnings of the company. For this reason a limitation based on the relation of fixed charges to earnings is unsatisfactory as a statutory rule. The method may be used, however, when security issues are controlled by commissions.

Section 20a of the Interstate Commerce Act contains no limitation upon indebtedness. But the Interstate Commerce Commission has often restricted the amount of bonds which a carrier might issue in a particular transaction, in order to keep fixed charges within the probable earning capacity of the company.⁴¹ In a few cases the Commission has held that stock should be issued instead of bonds.⁴²

The difficulty with requiring stock to be issued instead of bonds is that the company with earnings insufficient to keep its stock at par has to issue bonds or nothing. On the other hand, to require a carrier with good credit and an ample margin of earnings over fixed charges to issue stock seems unnecessarily harsh. The cry of interference with management will be raised if a commission requires stock to be issued, instead of bonds, when there seems to be no danger in selling bonds. As a result of this situation regulation has not been able to do very much to reduce railroad indebtedness except in reorganization cases.

The difficulties growing out of the large bond ratio were unusually evident during the depression of 1930 and the following years. In 1932, 122 out of 162 Class-I railroads failed to earn their fixed charges. These lines operated nearly 74 percent of the total mileage of Class-I lines. The result has been a widespread belief that the railroads ought to

⁴¹ *Securities of Yankton, Norfolk & Southern R. R. Co.*, 154 I.C.C. 669 (1929); *Acquisition and Operation by Peoria Terminal Co.*, 117 I.C.C. 377 (1926).

⁴² *Bonds of Chesapeake & Ohio Ry.* 105 I.C.C. 748 (1926); *Securities of Houston & Brazos Valley Ry. Co.*, 150 I.C.C. 11 (1928).

reduce their debt and fixed charges. Although this is desirable, it is ordinarily not an easy thing to accomplish. Debt reduction can be effected in four ways: (1) by issuing stock to retire bonds; (2) by retiring bonds out of earnings; (3) by adjustment of debt by agreement with creditors; and (4) by financial reorganization following receivership or trusteeship. Let us consider the possibility of reducing indebtedness by each of these methods.

The issuance of stock to replace bond issues is practicable only when railroad earnings and stock-market conditions are favorable. Between 1924 and 1929 stock-market conditions were such that many railroads could have taken advantage of the favorable market to effect a reduction in their indebtedness. Some did so. Between 1924 and 1930, out of a total of \$1,670,910,198 of common stock the issuance of which was authorized by the Interstate Commerce Commission, at least \$440,259,500 was used to retire funded debt, matured or unmatured.⁴³ In the same period, preferred or prior preference stock to the amount of \$65,386,700 was used for the same purpose. To facilitate the refunding or retirement of debt the Interstate Commerce Commission, in authorizing bond issues, has sometimes required that provision be made for the possible redemption of the bonds prior to maturity.⁴⁴

Retirement of debt from earnings has not been practiced by the railroads to any great extent. The usual practice of the railroads has been to refund maturing issues of bonds and thus to remain in debt. Retirement of debt from earnings may be accomplished in a systematic manner through the use of sinking funds or through the use of serial bonds maturing at regular intervals. It may also be accomplished by the appropriation of available earnings of a particular year to this use. It has been the practice of the Interstate Commerce Commission in recent years, when approving new bond issues by railroad companies, to insist that sinking funds be provided unless good and sufficient reasons appear for not doing so.⁴⁵ Insistence upon sinking-fund provisions is designed to bring about a gradual reduction of railroad indebtedness, but it does not always accomplish this purpose. In the past, the carriers have reinvested earnings in their business on a large scale. If part of the earnings must go into sinking funds, less is available for additions and

⁴³ Compiled from the annual reports of the Commission. The classification used by the Commission does not reveal all the securities issued for this purpose.

⁴⁴ *Bonds of Boston & Albany R. R.*, 138 I.C.C. 727 (1928); *Bonds of Terminal Railroad Association of St. Louis*, 145 I.C.C. 62 (1928).

⁴⁵ *Annual Report*, 1936, p. 17.

betterments. New capital requirements will then have to be met by new issues of securities, and the result may be no net reduction in indebtedness. The appropriation of a portion of the earnings of a particular year to debt reduction has not ordinarily been practiced because earnings have not been sufficient. During World War II, however, the large earnings of the railroads made it possible for many railroads to use part of their earnings for this purpose. In 1943 the reduction of long-term debt by Class-I line-haul railways amounted to \$419,951,026, or 4.43 percent.⁴⁶ Much of this reduction came about through the appropriation of surplus earnings to this use. In 1944 a further reduction of \$454,876,000, or 5.43 percent was made.⁴⁷ Debt reduction from surplus earnings, however, can hardly be expected in normal times.

Reduction of indebtedness through voluntary agreement with creditors is made possible by Chapter XV of the Bankruptcy Act.⁴⁸ A few instances of debt reduction by this method have occurred.⁴⁹

The most extensive reductions in railroad indebtedness have resulted from financial reorganizations as a result of receivership or trusteeship. A continuous process of reducing outstanding railroad indebtedness in this fashion has been going on through the years. There are always some railroads in the hands of receivers or trustees and undergoing financial reorganization. Table XXIII shows the railway mileage and the number of companies in the hands of receivers or trustees in each year since 1872. Scaling down of indebtedness in a financial reorganization is a recognition of the carrier's inability to meet its legal obligations. As of October 1, 1945, the Commission had approved plans for the reorganization of 32 railroads under the provisions of Section 77 of the Bankruptcy Act which was enacted in 1933.⁵⁰ These plans required the reduction of long-term debt from \$3,354,665,000 to \$1,833,543,000, or approximately 45 percent.⁵¹

Fixed charges are sometimes reduced without a reduction in the face amount of the bonds. This may be accomplished by a reduction in the rate of interest on bonds or by refunding maturing bond issues with bonds calling for interest at lower rates. Fixed-interest bonds may be

⁴⁶ *Annual Report, 1944*, p. 13.

⁴⁷ Interstate Commerce Commission, Bureau of Transport Economics and Statistics, *Monthly Comment on Transportation Statistics*, Sept. 10, 1945, p. 4.

⁴⁸ See p. 267, *supra*.

⁴⁹ See Interstate Commerce Commission, *Annual Report, 1940*, pp. 69-70.

⁵⁰ See pp. 257-260, *supra*.

⁵¹ Interstate Commerce Commission, *Annual Report, 1945*, p. 19.

refunded with issues of contingent-interest bonds or with issues of common or preferred stock. Reduction of fixed charges by these methods often involves modification of the legal rights of bondholders which

TABLE XXIII
RAILROAD RECEIVERSHIPS—1872-1945⁵²

	Year	Mileage in Receivership	No. of Companies		Year	Mileage in Receivership	No. of Companies
July 1	1872	1,160	7	June 30	1909	10,530	44
	1873	1,368	9		1910	5,257	39
	1874	3,154	26		1911	4,593	39
	1875	11,125	63		1912	9,786	44
	1876	13,281	80		1913	16,286	49
	1877	12,814	83		1914	18,608	68
	1878	12,956	94		1915	30,223	85
	1879	11,576	86		1916	37,353	94
	1880	8,522	61	Dec. 31	1917	17,376	82
	1881	5,175	40		1918	19,208	74
	1882	4,043	29		1919	16,590	65
	1883	2,100	20		1920	16,290	61
	1884	7,295	40		1921	13,512	68
	1885	14,733	79		1922	15,259	64
	1886	13,435	70		1923	12,623	64
	1887	9,780	58		1924	8,105	61
	1888	8,393	54		1925	18,687	53
	1889	8,885	52		1926	17,632	45
	1890	8,553	48		1927	16,752	40
	1891	8,607	55		1928	5,256	33
	1892	8,465	77		1929	5,703	29
	1893	11,397	93		1930	9,486	30
	1894	40,819	192		1931	12,970	45
	1895	37,856	169		1932	22,545	55
	1896	30,475	151		1933 ⁵³	41,698	78
	1897	18,862	128		1934	42,168	80
	1898	12,745	94		1935	68,345	87
	1899	9,853	71		1936	69,712	91
	1900	4,178	52		1937	70,884	109
	1901	2,497	45		1938	76,938	109
	1902	1,475	27		1939	77,013	108
	1903	1,185	27		1940	75,270	103
	1904	1,323	28		1941	69,859	91
June 30	1905	796	26		1942	66,904	87
	1906	3,971	34		1943	64,758	82
	1907	3,926	29		1944	50,497	76
	1908	9,529	52		1945	39,714	72

may be accomplished only as a result of voluntary adjustments, or as a result of financial reorganizations following receivership or trusteeship.

TERMINABLE BONDS AND REFUNDING

A peculiar characteristic of railroad finance in the United States has been the use of terminable mortgage bonds to raise funds that are to be

⁵² Figures from 1872 to 1893 taken from Swain, Henry M., *Economic Aspects of Railroad Receiverships*, American Economic Association Studies, vol. III, No. 2 (1898). Remainder of the figures from the Interstate Commerce Commission.

⁵³ Figures for 1933 and thereafter include roads in trusteeship under Section 77 of the Bankruptcy Act.

permanently invested in the property. The capital raised by selling bonds is irrevocably sunk in the property and cannot be withdrawn. This means that when the bonds mature the railroad can hardly be expected to pay them without further borrowing, unless it has accumulated enough earnings to retire the issue. If the bonds fall due at an unfortunate time, that is, when railroad earnings are poor, or when the bond market is unfavorable, the railroad will have difficulty in refunding them. Receiverships are often precipitated by inability to refinance. Even if refunding is possible it may be at a high cost. Commissioner Woodlock once severely condemned this feature of railroad financing: "The use of terminable mortgage bonds to secure railroad capital is an offense against the very nature of the case. A railroad does not naturally return capital once it has been invested; on the contrary, it is always engaging more capital as time goes on. When, therefore, it undertakes to pay a considerable sum of money at a fixed date under the terms of a mortgage, it can pay the maturing obligation only by raising new capital. . . . Granted that financing by terminable mortgage-bond issues may in the past have been forced upon the carriers by necessity, or seeming necessity, it is certain that any road that opens itself whereby the railroads can escape from a continuance of such a practice is a good road to take."⁵⁴ The remedy lies in the use of stock for financing permanent improvements when this can be done, and possibly the use of perpetual bonds.⁵⁵

POLICY OF THE COMMISSION IN EARLY REORGANIZATION CASES

Prior to 1933 the policy of the Interstate Commerce Commission in reorganization cases was somewhat weaker than might have been expected from its care in preventing undesirable financial practices in other cases. A reorganization affords an opportunity for a thorough revision of the capital structure of a company. It would be reasonable to have expected the Commission to insist that the total capitalization of a reorganized company was not excessive, and that the fixed charges were well within the earning capacity of the company. The Commission did, in some cases, insist on the latter requirement, but it permitted other reorganizations in which ability to earn fixed charges seemed highly uncertain. The Commission did not insist on limiting the total capitaliza-

⁵⁴ *Bonds of Chesapeake & Ohio Ry.*, 105 I.C.C. 748, 750 (1926).

⁵⁵ Commissioner Mahaffie has hinted that financing by terminable bonds should cease. See Hearings before a subcommittee of the Committee on Banking & Currency, U.S. Senate, 72d Cong., 2d sess., *Loans to Railroads by the Reconstruction Finance Corporation* (1933), p. 94.

tion in reorganization cases, but looked approvingly upon a reorganization plan that reduced capitalization and fixed charges. A more vigorous policy was advocated by Commissioner Eastman.⁵⁶ The Commission's weak policy in reorganization cases received some explanation in the St. Paul reorganization case where a particularly unsatisfactory plan was approved.⁵⁷ Prior to 1933 the Commission had no real part in the formulation of reorganization plans. After a plan had been worked out by representatives of the various classes of security holders—often a long and difficult process—and after a court had approved the plan, the carrier applied to the Commission for authority to issue the securities necessary to carry out the plan. If the Commission then insisted on a more thorough reorganization, it would undo the labor of the reorganization committees and require the working out of another plan that would be acceptable to all groups of security holders. Meanwhile the receivership would be prolonged. It was partly to remedy this situation that Section 77 of the Bankruptcy Act was enacted in 1933 which gives the Commission some control over a reorganization plan in its earlier stages.

REORGANIZATION CASES SINCE 1933

The reorganization plans which have been formulated by the Commission under Section 77 of the Bankruptcy Act have been much more thoroughgoing than those which were approved prior to the enactment of Section 77.

The Commission has endeavored to limit the total capitalization of the reorganized companies to an amount which prospective earnings will support. The Commission has refused to base total capitalization on investment, reproduction cost, or value for rate-making purposes, when it seemed unlikely that earnings would support such a capitalization. In the Western Pacific reorganization case the Commission said: "If this reorganization is to be successful, the capital structure of the reorganized company must be realistically related to its actual earning power, and consideration given to the investment in its property only to the extent that such investment is justified by the probable earnings reasonably foreseeable for the future."⁵⁸ Likewise, in the Chicago Great Western

⁵⁶ See his separate opinions in *Denver & Rio Grande Western Reorganization*, 90 I.C.C. 141, 156 (1924); *Missouri-Kansas-Texas Reorganization*, 76 I.C.C. 84, 108 (1922); *Chicago, Milwaukee & St. Paul Reorganization*, 131 I.C.C. 673 (1928).

⁵⁷ 131 I.C.C. 673 (1928).

⁵⁸ *Western Pacific Railroad Company Reorganization*, 230 I.C.C. 61, 87 (1938). See also 233 I.C.C. 409, 413 (1939).

reorganization case the Commission held that value for purposes of financial reorganization was basically "dependent upon the present and prospective earning power of the properties."⁵⁹ This position of the Commission has been sustained by the Supreme Court of the United States. "The basic question in a valuation for reorganization purposes," said the Court, "is how much the enterprise in all probability can earn."⁶⁰ The Court also held that it considered it to be the intent of Congress when enacting Section 77 of the Bankruptcy Act to make earning power the primary criterion in valuation for reorganization purposes.⁶¹

The Commission has also been diligent in keeping the fixed interest charges of the reorganized companies at a level which would be within their ability to meet, although the margin of earnings over fixed charges has not been large in some of the cases.⁶² The reorganization plans approved by the Commission under Section 77 of the Bankruptcy Act up to October 1, 1945, would reduce the fixed charges of the railroads concerned from \$148,865,539 to \$40,113,369.⁶³

The Commission's policy in reorganization cases has been criticized both as not drastic enough and as too drastic. Those who consider the policy as not drastic enough believe that the Commission should have insisted on a greater reduction of capitalization and of fixed charges. A bill to prescribe standards for reorganizations was considered by Congress in 1939. The bill provided that fixed charges should not be greater than the carrier could meet at all times, and that prospective earnings should be sufficient to cover fixed charges and something for every class of stock of the reorganized company. It also provided that there should be a rebuttable presumption that the expectable future average net railway operating income would not exceed the annual average for the twelve years preceding.⁶⁴ The effect of the bill, if it had been enacted, would have been to make financial reorganizations more drastic. It should be noted that this type of criticism of the Commission's policy in reorganization cases came at a time when railroad earnings were at a low ebb, due largely to the depression of the thirties.

The contention that the Commission's policy in reorganization cases

⁵⁹ *Chicago Great Western Railroad Co. Reorganization*, 247 I.C.C. 193, 196 (1941).

⁶⁰ *Group of Investors v. Chicago, Milwaukee, St. Paul & Pacific Railroad Co.*, 318 U.S. 523, 540 (1943).

⁶¹ *Ibid.*, p. 541.

⁶² Stevens, W. H. S., "Railroad Reorganizations under the Bankruptcy Act," 15 *Journal of Business of the University of Chicago* 205, 208-209 (1942).

⁶³ Interstate Commerce Commission, *Annual Report*, 1945, p. 19.

⁶⁴ 76th Cong., 1st sess., Senate Rep. No. 454, *Railroad Reorganization Act of 1939*.

has been too drastic, rather than too lenient, is the result of the rapid rise in railway earnings brought about by our entrance into World War II and by the preparedness program which preceded active participation in the war. These critics argue that railway earnings justify a higher capitalization than the Commission has permitted in its reorganization plans. In most of the plans which have been formulated by the Commission the common stock of the defaulting railroads has been declared worthless. This result came about because the valuations placed on the properties were influenced by low pre-war earnings, and hence were insufficient to leave any equity in the common stock after the claims of bondholders were recognized. The wiping out of stockholder interests seemed especially drastic when earnings subsequently increased to a point which would have permitted dividends to be paid on the stock found worthless.

This situation has resulted in new proposals to prescribe by statute the method of determining the value of railroad properties in reorganization cases. In 1943 Congress had under consideration a bill which would fix the capitalization of reorganized companies on the basis of the lowest of three figures: (1) existing capitalization; (2) the actual investment in the carrier's properties; (3) value for rate-making purposes found under Section 19a of the Interstate Commerce Act. The Interstate Commerce Commission expressed opposition to this bill, pointing out that under its provisions the capitalization of a reorganized road would have no relation to earning power, and that the road would eventually be in financial difficulties again. Similar bills were before Congress in 1944 and 1945 but did not become law.⁶⁵ A bill of a different nature, but also designed to prevent drastic financial reorganization of railroads whose earnings had improved in recent years, was passed in 1946 but failed to become law because the President withheld his approval.⁶⁶

It may be that the Commission has been unduly pessimistic about the probable future earnings of railroads which failed during the depression years of the thirties, but there is equal danger of being misled by their wartime earnings. Railroads in process of reorganization should not be

⁶⁵ For favorable reports on these bills by the House Judiciary Committee see 78th Cong., 2d sess., House Report No. 1615 (1944), and 79th Cong., 1st sess., House Report No. 48 (1945). For other criticism of recent railroad reorganizations see 79th Cong., 2d sess., Senate Report No. 925, *Investigation of Trusteeships under Section 77 of the Bankruptcy Act and Railroad Receiverships* (1946); and 79th Cong., 2d sess., Senate Report No. 1170, *Modification of Railroad Financial Structures* (1946).

⁶⁶ 78 *Traffic World* 463 (1946).

permitted to retain a capitalization which their earnings will not support in more nearly normal times.

SELECTED REFERENCES

For general treatments of railroad finance see F. A. Cleveland and F. W. Powell, *Railroad Promotion and Capitalization in the United States* (New York, Longmans, 1909), and, by the same authors, *Railroad Finance* (New York, Appleton, 1912). See also W. Z. Ripley, *Railroads: Finance and Organization* (New York, Longmans, 1915), which is rich in illustrative material.

An excellent discussion of the influence of capitalization on rates and service and of the bases of capitalization is found in James C. Bonbright, *Railroad Capitalization*, Columbia University Studies in History, Economics, and Public Law, vol. XCV, No. 1 (1920).

State regulation of railroad securities is summarized in Mary L. Barron, *State Regulation of the Securities of Railroads and Public Service Companies* (reprinted from Annals of the American Academy of Political and Social Science, 1918). A critical discussion of the experience of Massachusetts, New York, and Texas may be found in Ripley, *op. cit.*, ch. IX.

Federal regulation of railroad securities under Section 20a is discussed in J. Grodinsky, *Federal Regulation of Railroad Security Issues* (Philadelphia, 1925); J. H. Frederick, *Federal Regulation of Railway Securities under the Transportation Act of 1920* (Philadelphia, Univ. of Pennsylvania Press, 1927); D. Philip Locklin, *Regulation of Security Issues by the Interstate Commerce Commission*, University of Illinois Studies in the Social Sciences, vol. XIII, No. 4, (1927); J. H. Frederick, F. T. Hypps, and J. M. Herring, *Regulation of Railroad Finance* (New York, Simmons-Boardman Publishing Co., 1930), Part IV. The policy of the Commission under Section 20a is thoroughly treated in I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-A (1935), pp. 502-617.

Some problems of railroad finance are treated in H. G. Moulton, *The American Transportation Problem* (Washington, The Brookings Institution, 1933), chs. XII-XVI; and by W. H. S. Stevens in "Railroad Financing, 1890-1940," in National Resources Planning Board, *Transportation and National Policy* (Washington, Gov't. Printing Office, 1942), pp. 171-196.

The following financial investigations have been made by the Interstate Commerce Commission: *Consolidations & Combinations of Carriers*, 12 I.C.C. 277 (1907); *The New England Investigation*, 27 I.C.C. 560 (1913); *St. Louis & San Francisco R. R. Investigation*, 29 I.C.C. 139 (1914); *St. Paul & Puget Sound Accounts*, 29 I.C.C. 508 (1914); *Financial Transactions of the New York, New Haven & Hartford R. R. Co.*, 31 I.C.C. 32 (1914); *Financial Transactions, Chicago, Rock Island & Pacific R. R. Co.*, 36 I.C.C. 43 (1915); *Financial Relations, Louisville & Nashville R. R. Co.*, 33 I.C.C. 168 (1915); *Pere Marquette & Cincinnati, Hamilton & Dayton Ry. Co.*, 44 I.C.C. 1 (1917); *Denver & Rio Grande Investigation*, 113 I.C.C. 75 (1926); *Investigation of the Chicago, Milwaukee & St. Paul Ry. Co.*, 131 I.C.C. 615 (1928); *Investigation of New York, New Haven & Hartford R. R. Co.*, 220 I.C.C. 505 (1937).

The reports of the Wheeler investigation of railroad financing undertaken in response to S. Res. 71 of the 74th Congress contain much detailed information about railroad financial transactions of a dubious sort in recent years. See 76th Cong., 1st-3d sessions, Report No. 25, Parts 1-25 (1939-40).

For studies of railroad reorganizations before the enactment of Section 20a of the Interstate Commerce Act see Henry H. Swain, *Economic Aspects of Railroad Receiverships*, American Economic Association Studies, Vol. III, No. 2 (1898); Stuart Daggett, *Railroad Reorganization* (Cambridge, Harvard University Press, 1908), and by the same author, "Recent Railroad Failures and Reorganizations," 32 *Quarterly Journal of Economics* 446 (1918).

For the Commission's treatment of reorganizations after 1920 see Nathan L. Jacobs, "The Interstate Commerce Commission and Interstate Railroad Reorganizations," 45 *Harvard Law Review* 855 (1932). Section 77 of the Bankruptcy Act and the reasons for its enactment are discussed in Max Lowenthal, "The Railroad Reorganization Act," 47 *Harvard Law Review* 18 (1933); and also in Leslie Craven and Warner Fuller, "The 1935 Amendments of the Railroad Bankruptcy Law," 49 *Harvard Law Review* 1254 (1936).

The law journals abound in articles and notes dealing with railroad reorganizations under the Bankruptcy Act. Good articles on the subject are Wm. H. Moore, "Railroad Fixed Charges in Bankruptcy Proceedings," 47 *Journal of Political Economy* 100 (1939); W. H. S. Stevens, "Railroad Reorganization under the Bankruptcy Act," 15 *Journal of Business of the University of Chicago* 205 and 361 (1942); and Robert T. Swaine, "A Decade of Railroad Reorganization under Section 77 of the Federal Bankruptcy Act," 56 *Harvard Law Review* 1037 and 1193 (1943). Volume 7, No. 3, of *Law and Contemporary Problems* is a symposium on railroad reorganization and contains much valuable material.

CHAPTER XXV

RAILROAD SERVICE AND SERVICE REGULATION

A RAILROAD derives its income from performing the service of transportation and allied services. Under ordinary conditions, therefore, it is in the interest of the carrier to provide its patrons with an adequate and attractive service. Situations frequently arise, however, in which the motive of self-interest fails to give the public the kind of service which it demands. The public may desire a service that the railroad does not find fully remunerative and which it therefore refuses to perform. Absence of competition may lead to an indifferent attitude on the part of the carrier and to poorer service than the public expects. Inadequate service may result from a railroad's interest in a competing railroad or transportation agency, or from its wish to favor or discriminate against particular connecting lines.

THE DUTY OF SERVICE

The common law imposed upon common carriers the duty of providing adequate service, and the courts were often called upon to enforce these requirements. The common-law obligations extended to the adequacy of facilities, refusal of shipments, transportation with reasonable dispatch, and other matters. Regulatory statutes, both State and Federal, have also contained service requirements. Paragraph 4 of Section 1 of the Interstate Commerce Act, for instance, makes it the duty of every common carrier subject to the Act to provide and furnish transportation "upon reasonable request therefor." More specific requirements with respect to service found in the Act will be mentioned shortly. To some extent these provisions merely put in statutory form the common-law obligations; to some extent they modify and extend those requirements. Although the Interstate Commerce Commission and the State commissions are given control over many phases of service regulation, resort is still had to the courts for enforcement of some of the common-law obligations. Our study of railroad service can best be undertaken

COMMODITIES THAT WILL NOT BE CARRIED

Under the common law, common carriers were under a general duty to receive and carry all goods of the kinds they undertake or

assume to transport.¹ Carriers were liable for damages due to failure to transport such goods, and the courts, under some conditions at least, would issue writs of mandamus or injunction to force carriers to perform their obligation to the public.²

The duty to transport did not prevent a carrier from refusing to transport goods which it did not purport to carry generally. In an early case a certain common carrier by wagon was held to be under no obligation to transport a hogshead of molasses because he did not ordinarily carry the commodity since his cart was "too small for such freight."³ In another case a railroad was upheld in its refusal to carry dogs.⁴ Railroads are under no obligation to transport circus trains, and if they agree to move them, they may by contract impose such limitations on their liability as they see fit.⁵ Common carriers may refuse to carry explosives or other dangerous articles;⁶ in fact, railroads are prohibited by law from transporting certain explosives.⁷ Extremely valuable articles are commonly refused by carriers. The Consolidated Freight Classification lists the following property as not acceptable for shipment: bank bills, coin or currency; deeds, drafts, notes or valuable papers of any kind; jewelry; postage stamps or letters and packets of letters; precious metals or articles manufactured therefrom; precious stones; revenue stamps; antiques; or other old, rare, or precious articles of extraordinary value.⁸ The Commission has held that refusal to accept silverware and goldware for shipment was not in violation of Section 1, paragraph 4 of the Interstate Commerce Act.⁹ Rule 5 of the classification also gives the carriers the right to refuse freight "liable to impregnate or otherwise damage equipment or other freight."

Cases do not arise very frequently which involve the refusal to carry particular kinds of commodities. But in one case the Commission required the boat lines operating from Lake Superior and Lake Michigan ports to Buffalo and other Lake Erie ports to transport butter, eggs, and poultry products—articles which they proposed, by tariff rule, to refuse.¹⁰

¹ Elliott, B. K., and F. A., *A Treatise on the Law of Railroads*, 3d ed. (Indianapolis, Bobbs-Merrill Co., 1922), vol. 4, p. 635.

² See 10 *Corpus Juris* 69-70.

³ *Tunnel & Short v. Pettijohn*, 2 Harrington (Del.) 48 (1836).

⁴ *Honeyman v. Oregon & California R. R. Co.*, 13 Oreg. 352 (1886).

⁵ *Clough v. Grand Trunk Western Ry. Co.*, 155 Fed. 81 (1907), and cases there cited.

⁶ *California Powder Works v. Atlantic & Pacific R. R. Co.*, 113 Cal. 329 (1896).

⁷ 41 Stat. L. 1445, Sec. 234.

⁸ *Consolidated Freight Classification No. 16, Rule 3.*

⁹ *Emporium v. New York Central R. R. Co.*, 214 I.C.C. 153 (1936).

¹⁰ *Lake-and-Rail Butter & Egg Rates*, 29 I.C.C. 45 (1914).

REFUSAL OF PARTICULAR SHIPMENTS

If particular shipments consist of commodities which a railroad undertakes to carry, it is supposed to accept them. It may not accept or reject shipments at will. There are numerous situations, however, in which a railroad may reject shipments. The more common ones may be noted. If a shipment is improperly packed and therefore unfit for transportation, the railroad may refuse it.¹¹ The Interstate Commerce Commission, however, has refused to permit carriers to establish a classification rule providing for the refusal of shipments in containers not conforming to detailed specifications, since the shipments might be reasonably safe when not conforming to the specifications in all particulars.¹² Rule 5 of the Consolidated Freight Classification provides that articles will not be accepted unless in such condition and so prepared for shipment as to render the transportation thereof reasonably safe and practicable. It also provides that containers must be of sufficient strength and security to afford reasonable and proper protection to the freight which the containers enclose. Specifications for containers and packing requirements are found in the separate descriptions of articles in the body of the classification or in Rules 40 and 41. Penalty charges are provided if goods are accepted in containers not conforming to the specifications.

Carriers may likewise refuse shipments which result in violation of law. Thus a railroad cannot be compelled to transport intoxicating liquors for sale into territory which prohibits the sale thereof.¹³ The right of a carrier to refuse milk shipments to Chicago was upheld when the temperature of the milk was higher than was permitted by the city ordinance and it was impracticable to lower the temperature of the milk en route.¹⁴

Carriers may likewise refuse shipments when their safe transportation is endangered by strikes, floods, or other unusual conditions.¹⁵

An unusual press of business such that the carrier is unable to handle all the traffic offered is a valid reason for refusing shipments.¹⁶ In

¹¹ *Atlantic Coast Line R. R. Co. v. Rice*, 169 Ala. 265 (1910); *Union Express Co. v. Graham*, 26 Ohio St. 595 (1875); *Elgin Joliet & Eastern Ry. Co. v. Bates Machine Co.*, 98 Ill. App. 311 (1901).

¹² *Classification Specifications for Fibre-Box Containers*, 77 I.C.C. 713 (1923).

¹³ *Gum v. St. Louis & San Francisco Ry.*, 198 S.W. 494 (1917); *Milwaukee Malt Extract Co. v. Chicago, Rock Island & Pacific Ry. Co.*, 73 Iowa 98 (1887).

¹⁴ *City of Chicago v. Chicago & North Western Ry. Co.*, 275 Ill. 30 (1916).

¹⁵ See *Galveston, Harrisburg & San Antonio Ry. Co., v. Karrer*, 109 S.W. 440 (1908).

¹⁶ *St. Louis, Iron Mountain & Southern R. R. Co. v. Laser Grain Co.*, 179 S.W. 189, 192 (1915).

fact, carriers frequently declare embargoes on shipments when congestion of traffic occurs. The right of railroads to declare embargoes has been recognized by the courts,¹⁷ but embargoes must be administered without discrimination or favoritism.¹⁸

CAR SUPPLY AND CAR SERVICE

One of the most common sources of friction between railroads and shippers is failure to furnish a shipper with cars when he wants them. In periods of traffic congestion and car shortage enormous losses may be suffered by shippers from the failure of the carriers to furnish equipment for the transportation of freight. Under the common law a railroad company was under a legal obligation to provide adequate facilities for the transportation of goods that it holds itself out to carry. Prior to 1920 the Interstate Commerce Commission had no power to require carriers to provide themselves with cars.¹⁹ Control over this matter was in the hands of the courts. Since 1920 the Commission has been given control over the supply of equipment. Whether a carrier's supply of equipment is adequate is an administrative question for the Interstate Commerce Commission to decide, and the courts will not attempt to determine the question independently.²⁰ State statutes relating to car supply and distribution are now inapplicable so far as interstate shipments are concerned, because the Federal Government has so completely occupied the field.²¹

The obligation to furnish an adequate supply of cars extends to special types of equipment if there is a sufficient amount of traffic to justify the requirement. It has long been recognized that carriers should provide refrigerator cars for perishable products.²² It has been held, however, that carriers were under no obligation to provide tank cars for oil shipments.²³ The Commission has held that carriers cannot be com-

¹⁷ *United States v. Metropolitan Lumber Co.*, 254 Fed. 335, 348 (1918).

¹⁸ *Rogers & Co. v. Philadelphia & Reading R. R. Co.*, 12 I.C.C. 308 (1907). For a thorough treatment of the law relating to embargoes see Delaney, T. J., and Naftalin, Tobias, "A Study of the Law Relating to Embargoes of Common Carriers Subject to the Interstate Commerce Act," 11 *I.C.C. Practitioners' Journal* 3 (1943).

¹⁹ *United States v. Pennsylvania R. R. Co.*, 242 U.S. 208 (1916).

²⁰ *Louisville & Nashville R. R. Co. v. Cory*, 54 F. (2d) 8 (1931).

²¹ *Chicago, Rock Island & Pacific Ry. Co. v. Hardwick Farmers Elevator Co.*, 226 U.S. 426 (1913).

²² *Baker v. Boston & Maine R. R. Co.*, 65 Atl. 386 (1906); *In the Matter of Charges for Transportation of Fruit*, 11 I.C.C. 129 (1905).

²³ *Chicago, Rock Island & Pacific Ry. Co. v. Lawton Refining Co.*, 253 Fed. 705 (1918).

pelled to furnish cars of uncommon length,²⁴ and that live poultry and "palace stock cars" are such highly specialized types of equipment that it is doubtful if carriers could be required to furnish them.²⁵ The Commission has also said that the demand for cars different from ordinary equipment should be more general than the needs of one shipper before it can be said to be incumbent upon the railroad to furnish them.²⁶

The duty to furnish cars includes the duty to have them properly equipped for the transportation of property which the railroad is accustomed to carry.²⁷ Railroads may be required to furnish cars provided with stoves or other protection from freezing if there is a substantial movement of the commodities which require such protection.²⁸ The railroads are required to provide grain doors for cars in which grain is shipped in bulk.²⁹ In practice the carriers usually furnish the grain doors or the lumber for their construction, but the installation is performed by the shipper at his own expense.³⁰ But the Commission has held that similar protection need not be furnished by carriers for the shipment of certain other commodities in bulk.³¹ It has likewise been held that a carrier is under no obligation to provide cars equipped with hooks and racks for the transportation of chilled and frozen meats although the regulations of the United States Department of Agriculture required such meat to be shipped in that manner and not piled on the floor of the cars.³²

The duty to furnish cars does not mean that the railroad must own the equipment. Many small railroads in the United States own no rolling stock whatever. They may rely upon private car companies, or have arrangements with connecting railroads to furnish them with cars.

²⁴ *National Supply Co. v. Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.*, 140 I.C.C. 66 (1928).

²⁵ *In the Matter of Private Cars*, 50 I.C.C. 652, 690 (1918).

²⁶ *Ohio Body & Blower Co. v. Akron, Canton & Youngstown Ry. Co.*, 104 I.C.C. 19, 22-23 (1925).

²⁷ *Loomis v. Lehigh Valley R. R. Co.*, 101 N.E. 907 (1913); *Forester & Co. v. Southern Ry. Co.*, 61 S.E. 524 (1908).

²⁸ *Protection of Potato Shipments in Winter*, 26 I.C.C. 681 (1913).

²⁹ Grain doors are inner doors which keep the grain from leaking out and from pushing against the car door.

³⁰ *Chicago Board of Trade v. Abilene & Southern Ry. Co.*, 220 I.C.C. 753 (1937).

³¹ *Sterling Salt Co. v. Pennsylvania R. R. Co.*, 43 I.C.C. 276 (1917); *Morgan Sand Producers Assoc. v. Baltimore & Ohio R. R. Co.*, 51 I.C.C. 475 (1918); *Keystone Wood Co. v. Pennsylvania R. R. Co.*, 37 I.C.C. 622 (1916).

³² *Frankfeld & Co. v. New York Central Railroad Co.*, 40 I.C.C. 555 (1916). But see the vigorous dissent of Commissioner McChord, pp. 559-564.

It should be noted also that a carrier is not liable for failure to supply cars to shippers when there is an unexpected demand for them. Carriers cannot be expected to have sufficient equipment to meet the peak demands made upon them.³³ But when a carrier is unable to furnish cars because of an unusual press of business it must notify the shipper, if it wishes to avoid liability, stating that it is unable to supply them.³⁴

DEMURRAGE

As a means of inducing shippers to load and unload cars promptly, thereby increasing the utilization of existing cars, it has long been the practice of the carriers to charge "demurrage" when cars are detained beyond a certain period of time, commonly 48 hours. Charges for demurrage have varied from time to time. Recently the charges have been on the basis of \$2.20 per day for the first two days, and \$5.50 for each additional day. Demurrage is assessed according to detailed rules.³⁵

Some States have attempted to enforce adequate car service by enacting "reciprocal demurrage" laws. These laws impose penalties upon railroads for failure to furnish cars or failure to move them expeditiously when loaded. It is argued that if a railroad is entitled to exact demurrage charges for the detention of equipment by the shipper or consignee, the shipper should be entitled to levy a penalty on the carrier for failure to provide or move equipment. State reciprocal demurrage laws or rules have been upheld in a number of cases in so far as they pertained to intrastate commerce, but they have been declared invalid as applied to interstate commerce.³⁶ The Interstate Commerce Commission has never promulgated any reciprocal demurrage rules, and has, in fact, denied its power to do so.³⁷

Reciprocal demurrage laws have not proved satisfactory. It seems unfair to penalize a carrier for inability to furnish equipment when a shortage of equipment is brought about by an unusual and unanticipated volume of business, or by other circumstances beyond the carrier's control.

³³ *Pennsylvania R. R. v. Puritan Coal Co.*, 237 U.S. 121 (1915).

³⁴ *Eastern Ry. Co. v. Littlefield*, 237 U.S. 140 (1915).

³⁵ For the standard demurrage rules see *Freight Traffic Red Book*, 1944, pp. 340-364.

³⁶ *Yazoo & Mississippi Valley R. R. Co. v. Greenwood Grocery Co.*, 227 U.S. 1; *St. Louis, Iron Mountain & Southern Ry. Co. v. Edwards*, 227 U.S. 265 (1913); *Chicago, Rock Island & Pacific Ry. Co. v. Hardwick Elevator Co.*, 226 U.S. 426 (1913).

³⁷ *In the Matter of Car Shortage, etc.*, 12 I.C.C. 561, 574-578 (1907); *Deposit for Live-Poultry Car Ordered*, 66 I.C.C. 653, 656 (1922).

DISTRIBUTION OF CARS IN TIME OF SHORTAGE

Special problems arise in periods of car shortage. At such times opportunity for favoritism and discrimination arises in the distribution of the inadequate supply of equipment. For this reason rules have been established by the carriers for the distribution of cars in time of shortage. The problem has been particularly acute in the coal-mining industry because ability to operate a mine continuously depends, in many cases, upon ability to move the coal away from the mine as it is produced. Elaborate rules have been set up to deal with this situation.³⁸ The Transportation Act of 1920 made special mention of the distribution of coal cars and required their distribution according to mine ratings without discrimination of any sort.³⁹

TERMINAL FACILITIES

The duty to provide adequate facilities includes an obligation to provide adequate terminals for the loading, unloading, and handling of freight.⁴⁰ This obligation extends to providing adequate yards and pens for receiving livestock shipments.⁴¹

LOADING AND UNLOADING

In the United States it is the usual practice for shippers to load and consignees to unload carload freight, while less-than-carload freight is loaded and unloaded by employees of the railroad. This is one reason for the lower rates on carload than on less-than-carload lots. Under competitive conditions the carriers have sometimes departed from the usual practice and have loaded and unloaded carload freight or have aided in the process.⁴² But the Commission has recognized the right of the carriers to exact an additional charge for such service.⁴³

An exception to the general practice is also made in case of livestock shipments. Under the Transportation Act of 1920 it is the duty of carriers to load and unload livestock without extra charge at points

³⁸ The Commission's treatment of this problem is discussed in Locklin, D. P., *Railroad Regulation Since 1920* (New York, McGraw-Hill, 1928), pp. 76-78. The leading cases are 12 I.C.C. 398 (1907), 13 I.C.C. 451 (1908), 80 I.C.C. 520 (1923), 93 I.C.C. 701 (1924).

³⁹ Par. 12, Section 1.

⁴⁰ *Mattoon v. Republican Valley R. R. Co.*, 24 N.W. 329 (1885); *Joynes v. Pennsylvania R. R. Co.*, 83 Ad. 1016 (1912).

⁴¹ *Covington Stock-Yards Co. v. Keith*, 139 U.S. 128 (1891).

⁴² *Loading and Unloading Carload Freight*, 101 I.C.C. 394 (1928).

⁴³ *Ibid.*

which have public stockyards.⁴⁴ But where no public stockyards are provided, the carrier may refuse to load or unload carload lots of livestock or may make a charge if it does perform the service.⁴⁵

TRAIN SERVICE

Many States have exercised control over train service, particularly over passenger-trains. The Interstate Commerce Commission has no jurisdiction over passenger-train service, but it does have control over facilities for the transportation of property, and hence over freight trains.⁴⁶ Control over facilities for the transportation of property gives the Commission control over "mixed trains," that is, those which transport both passengers and freight.⁴⁷ The Commission has had little occasion to require improvements in train service.⁴⁸

SWITCH CONNECTIONS AND SIDINGS

Carload freight is ordinarily delivered by a carrier in one of two ways: the car may be placed on public "team tracks" where the consignee may come and get his freight; or it may be placed on a private siding beside which the consignee's establishment is located. The side tracks and spurs running to particular industries are considered part of a railroad's terminal facilities, even though the tracks may be owned by the industry. Delivery on these tracks is part of a railroad's obligation. Extra charges for this service are not permitted if the service is a substitute for comparable team-track delivery. But if the necessary switching service is an added service, performed at an additional expense, appropriate charges may be made for it.⁴⁹

The Interstate Commerce Commission's power over switch connections with private sidings is found in paragraph 9 of Section 1. This paragraph provides that any common carrier subject to the Act "upon application of any lateral, branch line of railroad, or of any shipper tendering interstate traffic for transportation, shall construct, maintain,

⁴⁴ *Livestock Loading & Unloading*, 58 I.C.C. 164 (1920).

⁴⁵ *Omaha Packing Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 66 I.C.C. 44 (1921).

⁴⁶ *Railroad Commission of Wisconsin v. Chicago & North Western Ry. Co.*, 87 I.C.C. 195 (1924).

⁴⁷ *In re Train Service on Northern Pacific Ry. Co.*, 112 I.C.C. 191 (1926).

⁴⁸ See *Caruso, Rinella, Battaglia Co. v. Atlantic Coast Line R. R. Co.*, 152 I.C.C. 77 (1929); *Same v. Chicago & Alton R. R. Co.*, 171 I.C.C. 612 (1931); *Bodine & Clark Livestock Commission Co. v. Great Northern Ry. Co.*, 174 I.C.C. 363 (1931).

⁴⁹ *Associated Jobbers of Los Angeles v. Atchison, Topeka & Santa Fe Ry.*, 18 I.C.C. 310 (1910); *Los Angeles Switching Case*, 234 U.S. 294 (1914).

and operate upon reasonable terms a switch connection with any such lateral, branch line of railroad, or private side track which may be constructed to connect with its railroad, where such connection is reasonably practicable and can be put in with safety and will furnish sufficient business to justify the construction and maintenance of the same." We are here concerned with this paragraph in so far as it relates to connections with private side tracks, and not with lateral branch lines of railroad. The latter provision will be discussed shortly.

There are several points to be noted in the above provision of the Act. It gives the Commission no authority to require the construction of sidings, but only to require the construction of switch connections with sidings already constructed.⁵⁰ Neither was the Commission's power in this respect extended by the provision in the Act of 1920 which gave the Commission power to require the construction of extensions, since industrial side tracks located wholly within one State were specifically excluded from these provisions.⁵¹ But although the Commission cannot require the construction of sidings, the laws of many States give the State commission power to require the building of side tracks to industries.⁵²

A second point to be observed in connection with the power to require the construction of switch connections is that certain conditions must be fulfilled before the Commission can issue such an order. First, the switch connection must be "reasonably practicable"; second, it must be where it can be put in with safety; and, third, it must furnish sufficient business to justify its construction and maintenance. When the Commission requires the establishment of switch connections it may prescribe the compensation which the carrier is to receive for the service.

SWITCHING AND SPOTTING

The switching of cars onto private sidings is one form of delivering shipments. It is in lieu of placing the cars on "team tracks," and we have noted that the carrier can be required to perform the service of placing the cars on industrial sidings. But it is generally recognized that the railroad's obligation is fulfilled when the car is switched onto

⁵⁰ *Certain-Teed Products Corp. v. Chicago, Rock Island & Pacific Ry. Co.*, 68 I.C.C. 260 (1922); *Winters Metallic Paint Co. v. Chicago, Milwaukee & St. Paul Ry. Co.*, 16 I.C.C. 587 (1909).

⁵¹ *National Industrial Traffic League v. Aberdeen & Rockfish R. R. Co.*, 61 I.C.C. 120, 122 (1921).

⁵² *Chicago & North Western R. R. Co. v. Ochs*, 249 U.S. 416 (1919); *Lake Erie & Western R. R. Co. v. Public Utilities Commission of Illinois*, 249 U.S. 422 (1919).

the private siding clear of the main tracks.⁵³ As a usual thing, however, the carriers do more than this. They "spot" the cars, that is, place them in a position for loading or unloading. Compensation for this service, furthermore, is found in the line-haul rate. No extra charge is levied.

The practice of railroads in performing the "spotting" service has led to difficulties in the larger industrial plants which have a complicated system of tracks, with much intraplant switching to perform, and where placing the cars for loading or unloading whenever convenient for the carrier would interfere with plant operations. In such situations the industry often prefers to do its own "spotting" with its own locomotives. The industry may then seek an allowance from the railroad company for performing the service which the railroad had been giving. The Commission has held in a number of cases that at these large industrial plants the carrier's obligation is fulfilled if it places the cars on interchange tracks, and that it cannot be required to perform the complicated switching operations involved in placing cars for unloading within the plant.⁵⁴ If this switching and spotting service cannot be required, it follows that when it is performed by the industry, the industry cannot demand an allowance from the carrier.⁵⁵

INTERCHANGE FACILITIES WITH OTHER CARRIERS

Paragraph 9 of Section 1 of the Interstate Commerce Act, which became part of the Act in 1910, empowered the Commission to require the establishment of connections between a railroad and a "lateral branch line of railroad," but this provision was not very important because its application was limited to connections with the narrow class of lines that could qualify as lateral branch lines. The courts construed this provision very strictly and would not uphold attempts to require connections between a railroad and another which was more than a lateral branch line in the narrow sense.⁵⁶

Paragraph 4 of Section 3 of the Act requires carriers to "afford all reasonable, proper, and equal facilities for the interchange of traffic between their respective lines." The Commission has asserted that be-

⁵³ See *Industrial Railways Case*, 29 I.C.C. 212, 225-226 (1914).

⁵⁴ *General Electric Co. v. New York Central & Hudson River R. R. Co.*, 14 I.C.C. 237 (1908); *Industrial Railways Case*, 29 I.C.C. 212, 225-230 (1914).

⁵⁵ *Propriety of Operating Practices—Terminal Services*, 209 I.C.C. 11, 44-45 (1935). See also *U. S. v. American Sheet & Tin Plate Co.*, 301 U.S. 402 (1937); *U. S. v. Pan American Petroleum Corp.*, 304 U.S. 156 (1938); *U. S. v. Wabash R. R. Co.*, 321 U.S. 403 (1944).

⁵⁶ *United States v. Baltimore & Ohio Southwestern Ry.*, 226 U.S. 14 (1912).

cause of this provision in the law it is empowered to require railroads to establish connections with other lines.⁵⁷ The jurisdiction of the Interstate Commerce Commission over the establishment of interchange facilities between railroads is apparently exclusive, and the States may no longer exercise control over the same matter.⁵⁸

The Interstate Commerce Commission in a number of instances has required the construction of track connections between railroads for the interchange of freight.⁵⁹ But such requests have been denied if the volume of traffic to be interchanged did not warrant the expenditure,⁶⁰ or if the resulting interchange would merely divert competitive traffic from one railroad to another.⁶¹

INTERCHANGE OF FREIGHT

The power to require construction of interchange facilities would be of little value without the power to require interchange of traffic. This power, too, is vested in the Interstate Commerce Commission so far as interstate traffic is concerned. The authority is conferred by a number of provisions in the Act. We have already noted the fact that control over interchange of cars is vested in the Commission. In addition, paragraph 4 of Section 3 requires carriers to afford "all reasonable, proper and equal facilities" for the interchange of traffic and for "the receiving, forwarding, and delivering of passengers or property to and from their several lines and those connecting therewith." Mention should also be made of Section 7 of the Act which makes it unlawful for common carriers to enter into any combination, contract, or agreement to prevent by carriage in different cars or by other means, the continuous carriage of freight from place of shipment to destination, unless such interruption is made in good faith and for some necessary purpose. Of greater importance is the requirement that carriers must establish

⁵⁷ *Pittsburgh & West Virginia Ry. Co. v. Lake Erie, Alliance & Wheeling R. R. Co.*, 81 I.C.C. 333, 334 (1923); *Breckenridge Chamber of Commerce v. Wichita Falls, Ranger & Fort Worth R. R.*, 109 I.C.C. 81, 82 (1926).

⁵⁸ *People v. Public Service Commission*, 233 N.Y. 113, 119-121 (1922).

⁵⁹ *Commercial Club of Faulkton, S. Dak. v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 157 I.C.C. 350 (1929); *Dansville Board of Trade v. Dansville & Mount Morris R. R. Co.*, 188 I.C.C. 580 (1932). *Keres Ry. Committee v. Beaver, Meade & Englewood R. R. Co.*, 214 I.C.C. 526 (1936), *Wisconsin Power & Light Co. v. Chicago & North Western Ry. Co.*, 220 I.C.C. 475 (1937).

⁶⁰ *Hilliard Co. v. Great Northern Ry. Co.*, 190 I.C.C. 201 (1932).

⁶¹ *Chamber of Commerce of Sapulpa, Okla. v. St. Louis-San Francisco Ry. Co.*, 181 I.C.C. 457 (1932).

through routes and joint rates with other lines—a requirement that is considered more fully below.

The Commission has often held that a shipper is entitled to have his freight transported without the requirement of unloading and reloading at his own expense at points of connection with different carriers.⁶² In an effort to keep their equipment on their own lines railroads have sometimes attempted to require transfer of the lading at interchange points, but the Commission has held that such restrictions are unreasonable.⁶³ Railroads should make satisfactory arrangements for the interchange and return of cars. Elaborate rules have been established by the railroads to bring about the return of cars to the owning lines. Per diem charges have also been levied for many years to compensate owning carriers for the use of their equipment when it is on other lines.

THROUGH ROUTES AND JOINT RATES

Paragraph 4 of Section 1 of the Interstate Commerce Act makes it the duty of railroads to establish through routes and joint rates with other lines, and Section 15 empowers the Commission to compel their establishment. The power of the Commission to require the establishment of through routes and joint rates carries with it the power to prevent the closing of through routes and the cancellation of joint rates. The terms "through routes" and "joint rates" should be clearly understood before these sections of the law are discussed. As defined by the United States Supreme Court, a "through route" is "an arrangement, express or implied, between connecting railroads for the continuous carriage of goods from the originating point on the line of one carrier to destination on the line of another."⁶⁴ If there is a through route, there is a through rate. This may be a combination rate, that is, the sum of separate rates fixed by the several carriers forming the through route, or it may be a "joint rate." A "joint rate" is a single through rate from the point of origin to destination, usually less than the sum of the local rates established by the connecting carriers. Thus there may be through routes with or without joint rates. The power of the Commission extends both to the creation of through routes and to the establishment of joint rates to go with them.

⁶² *St. Louis, Springfield & Peoria R. R. Co. v. Pekin & Pekin Union Ry. Co.*, 26 I.C.C. 226, 234 (1913).

⁶³ *Omaha Grain Exchange v. Great Northern Ry. Co.*, 47 I.C.C. 532 (1917).

⁶⁴ *St. Louis-Southwestern Ry. Co. v. United States*, 245 U.S. 136, 139, note 2 (1917).

The power of the Commission to require the establishment of through routes is limited somewhat by a provision in the law to the effect that a carrier may not be required to short-haul itself. This limitation is found in paragraph 4 of Section 15. It provides that "in establishing any such through route the commission shall not . . . require any carrier by railroad, without its consent, to embrace in such route substantially less than the entire length of its railroad . . . which lies between the termini of such proposed through route."⁶⁵ This limitation does not apply, however, when its observance would result in a route which is unreasonably long as compared with another practicable through route which could otherwise be established, nor does the limitation apply if the through route which is being proposed "is needed in order to provide adequate, and more efficient or more economic, transportation." Even in these situations, however, the Commission is required to give "reasonable preference" to the carrier which originates the traffic.⁶⁶ The short-hauling limitation on the Commission's power to require the establishment of through routes does not restrict the Commission's power to require a continuance of previously existing through routes which short-haul one of the carriers concerned.⁶⁷

One more point regarding the short-hauling limitations on the Commission's power to require the establishment of through routes should be noted. It does not operate to prevent the Commission from requiring a railroad to treat connecting lines impartially. If a carrier voluntarily short-hauls itself, it cannot refuse to interchange on equal terms with another carrier similarly situated and in a position to interchange and transport traffic equally well.⁶⁸

JOINT USE OF TERMINALS

Difficulty has often arisen because of the ownership of valuable terminal properties by individual railroad companies. Some railroads naturally have much better terminal facilities in large cities than others. The railroad having a strategic location with extensive industries located on its tracks is in a much better position to obtain traffic than its less fortunate rivals. A carrier naturally guards this competitive advantage and may refuse to allow other railroads to use its terminal facilities, or

⁶⁵ This rule does not apply if one of the carriers is a water line.

⁶⁶ These provisions of section 15, paragraph 4, were interpreted by the Supreme Court of the United States in *Pennsylvania Railroad Co. v. United States*, 323 U.S. 588 (1945).

⁶⁷ *Cancellation of Rates and Routes via Short Lines*, 245 I.C.C. 183, 185-191 (1941).

⁶⁸ *Chattanooga Packet Co. v. Illinois Central R. R. Co.*, 33 I.C.C. 384 (1915); *Western Pacific R. R. Co. v. Southern Pacific Co.*, 55 I.C.C. 71 (1919).

may refuse to switch traffic from industries on its own lines to the rival system. The public, on the other hand, prefers open terminals, that is, terminals which are open to the use of all carriers.

There are two methods of organizing terminal operations in such a way as to make the terminals available for all lines. One is by reciprocal switching, the other is by the creation of terminal companies or associations. Under a reciprocal switching arrangement traffic brought into a terminal by one railway may be switched to industries on the tracks of another. In the same way traffic originating at a plant on the tracks of one railway may be turned over to any other for the line haul. Terminal companies or associations may be of several types. They may be independent private organizations; they may be municipally owned; or they may be owned and controlled by some or all of the railroads entering the city. The characteristic feature of this type of organization, however, is the ownership and operation of the terminals in the interest of all of the participating lines. If terminal associations do not include all carriers entering a city, the same difficulties may arise as when each railroad has its own terminal facilities and refuses to permit their use by other lines. For this reason it is preferable that terminal organizations include all the lines entering the terminal, or at least that there be no discrimination against those not in the organization.

Prior to 1920 the law specifically recognized the right of a carrier to the exclusive use of its terminals and sought to protect that right. The provision of Section 3 requiring carriers to afford facilities for the interchange of traffic between their respective lines was qualified by the proviso that this should not be construed "as requiring any such common carrier to give the use of its tracks or terminal facilities to another carrier engaged in like business." The Commission was therefore powerless to require a carrier to open a terminal to other carriers if the owning carrier insisted upon retaining its exclusive use.⁶⁹ But if a carrier had opened its terminals to the use of other railroads, it had to open them to all. It could not, for instance, switch traffic for some railroads and refuse to do it for others.⁷⁰ These were called "open" terminals, while those used only by the owning line were called "closed" terminals. By opening its terminals to one line the railroad waived the protection afforded by the provisions of paragraph 3 of Section 3.

⁶⁹ *Morris Iron Co. v. Baltimore & Ohio R. R. Co.*, 26 I.C.C. 240 (1912); *Kansas City & Memphis Ry. Co. v. St. Louis & San Francisco R. R. Co.*, 46 I.C.C. 464 (1917).

⁷⁰ *Chicago, Lake Shore & South Bend Ry. Co. v. Director General*, 58 I.C.C. 647 (1920); *Switching at Galesburg, Ill.*, 31 I.C.C. 294 (1914).

Increased control over terminals was vested in the Interstate Commerce Commission by the Transportation Act of 1920. The Act removed the provision which protected the carrier in the exclusive use of its terminals. It also provided that the Commission could require the joint use of terminals. Regulation of terminal facilities of interstate railroads is now a matter exclusively within the jurisdiction of the Federal Government and beyond the power of the State,⁷¹ although control over the construction of union stations is still in the States.⁷²

Two points must be established before the Commission can issue an order requiring the joint use of terminals. It must be shown that joint use is in the public interest, and that it will not impair the ability of the owning carrier to handle its own business. The owning carrier is entitled to compensation for the use of its facilities by another. This is to be a matter of agreement between the carriers, if possible, but if the carriers are unable to agree the Commission may fix the compensation. This is to be ascertained according to the principles controlling compensation in condemnation proceedings. The latter provision, in the estimation of many students of the problem, will prevent any widespread endeavor of weaker lines to seek the use of the terminals of their more fortunately located rivals.⁷³ In fact, the constitutionality of the attempt to require the joint use of terminals has been questioned.⁷⁴

The desirability of common use of terminal facilities has often been urged. Professor Ripley, in his report to the Interstate Commerce Commission on railroad consolidation, emphasized the necessity for "free and untrammelled utilization of terminals."⁷⁵ The Commission has spoken with equal emphasis: "All terminal properties should be thrown open to all users on fair and equal terms so that every industry on whatever rails located shall have access to all lines radiating from that terminal, and every line carrier reaching that terminal shall similarly have access to all terminal tracks within the terminal area."⁷⁶ This position has been subsequently reaffirmed by the Commission.⁷⁷

⁷¹ *Southern Ry. Co. v. Shealy*, 18 F. (2d) 784 (1927).

⁷² *Interstate Commerce Commission v. United States ex rel. City of Los Angeles*, 280 U.S. 52 (1929).

⁷³ Daniels, W. M., "The Future of American Railroads," 38 *Quarterly Journal of Economics* 361, 373 (1924); Vanderblue, H. B., and Burgess, K. F., *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), p. 278.

⁷⁴ Vanderblue and Burgess, *op. cit.*, p. 279.

⁷⁵ 63 I.C.C. 465, 483 (1921).

⁷⁶ *Consolidation of Railroads*, 159 I.C.C. 522, 522-523 (1929).

⁷⁷ *Consolidation of Railroads*, 185 I.C.C. 403, 414 (1932).

Notwithstanding statements by the Commission in favor of joint utilization of terminals it has required joint use in only a few cases.⁷⁸ In a number of instances the Commission has refused to require carriers to open their terminals. Competition between railroads is still very real, and carriers guard jealously the advantages they may possess because of superior terminals. The Commission has been inclined to protect the advantage which a particular railroad may have because of its superior terminal location. Loss of traffic or of revenue that would be suffered by the owning carrier, if it opened its terminal facilities to the use of other lines, has apparently been a factor in the Commission's reluctance to require joint use of terminal facilities.⁷⁹

ABANDONMENT

Once a railroad is constructed, industries locate along its line, communities spring up, homes and business establishments arise. The subsequent abandonment of the railroad works a hardship upon the industries established along its line and upon the communities that have grown up along it. Property values decline and losses are imposed upon many individuals. It is natural, therefore, that the people, acting collectively through their government, should endeavor to prevent the abandonment of railroad lines. In the words of one writer, "The state is morally bound to protect its people who have gone out upon these highways, practically at the invitation of the state, and invested in lands and industrial enterprises, the values of which are dependent upon the continued operation of the rail highway," and it is therefore its "political duty to protect the people, in so far as it can do so, by the maintenance of rights to use highways which have been established by governmental authority."⁸⁰ The theory behind this interference with railroad abandonment was stated very clearly by the Supreme Court

⁷⁸ *Port Arthur Chamber of Commerce v. Texarkana & Fort Smith Ry. Co.*, 136 I.C.C. 597 (1928); *Chicago & Alton R. R. Co. v. Toledo, Peoria & Western Ry. Co.*, 146 I.C.C. 171 (1928); *Restriction of Public Team Track Service*, 159 I.C.C. 135 (1929); *Use of Northern Pacific Tracks at Seattle by Great Northern*, 161 I.C.C. 699 (1930); *Missouri-Kansas-Texas R. R. Co. v. Kansas City Terminal Ry. Co.*, 104 I.C.C. 203 (1925); *Chicago & North Western Ry. Co. v. Ann Arbor R. R. Co.*, 263 I.C.C. 287 (1945).

⁷⁹ *Port Arthur Chamber of Commerce v. Texarkana & Fort Smith Ry. Co.*, 73 I.C.C. 361, 364 (1922); *York Manufacturers' Assoc. v. Pennsylvania R. R. Co.*, 73 I.C.C. 40, 49-50 (1922); *Hastings Commercial Club v. Chicago, Milwaukee & St. Paul Ry.*, 107 I.C.C. 208, 216 (1926); *Jamestown, N. Y., Chamber of Commerce v. Jamestown, Westfield & Northwestern R. R. Co.*, 195 I.C.C. 289, 291 (1933).

⁸⁰ Needham, C. W., "The Rights of the State and Adjacent Owners of Property in the Maintenance and Operation of a Railroad," 32 *Yale Law Journal* 247, 253 (1923).

of Kansas in 1894: "The railway corporation takes its franchises subject to the burden of a duty to the public to carry out the purposes of the charter. The road, when constructed, becomes a public instrumentality, and the roadbed, superstructure, and other permanent property of the corporation are devoted to the public use. From this use neither the corporation itself, nor any person, company, or corporation deriving its title by purchase . . . can divert it without the assent of the state."⁸¹ But although the courts sometimes enjoined the abandonment of railways, they have held that property owners injured by an abandonment cannot recover their losses from the railroad company.⁸²

In the decision by the Kansas Supreme Court, quoted above, the court held that the duty of the carrier to operate its road existed whether operated at a profit or at a loss, but the United States Supreme Court has held that a railroad company cannot be compelled to operate at a loss against its will.⁸³ In 1921 the Court said: "Apart from statute or express contract people who have put their money into a railroad are not bound to go on with it at a loss if there is no reasonable prospect of profitable operation in the future."⁸⁴ To compel a railroad to operate at a loss would be a taking of its property without compensation. But the right to abandon an unprofitable line does not mean that a railroad is free to abandon an unprofitable branch, provided the system as a whole is profitable. "A railway may be compelled to continue the service of a branch or part of a line, although the operation involves a loss."⁸⁵

Prior to 1920 control over railroad abandonments was exercised by the States to some extent. The Act of 1920 gave the Federal Government control over abandonment although the States were not wholly deprived of their authority over the matter. Paragraph 18 of Section 1 provides that "no carrier by railroad subject to this Act shall abandon all or any portion of a line of railroad, or the operation thereof, unless and until there shall first have been obtained from the Commission a certificate that the present and future public convenience and necessity permit of such abandonment." Another paragraph specifically excludes from the Commission's control the abandonment (and construction) of

⁸¹ *Naylor v. Dodge City, Montezuma & Trinidad R. R. Co.*, 36 Pac. 747, 748 (1894).

⁸² *Helena & Livingston Smelting & Reduction Co. v. Northern Pacific Ry. Co.*, 204 Pac. 370 (1922).

⁸³ *Brooks Scanlon Co. v. Railroad Commission of Louisiana*, 251 U.S. 396 (1920).

⁸⁴ *Bullock v. Railroad Commission of Florida*, 254 U.S. 513, 520-521 (1921). See also *Railroad Commission v. Eastern Texas R. R. Co.*, 264 U.S. 79 (1924).

⁸⁵ *Fort Smith Traction Co. v. Bourland*, 267 U.S. 330 (1925). See also *Chesapeake & Ohio Ry. Co. v. Public Service Commission*, 242 U.S. 603, 607 (1917).

spur, industrial, team, switching or side tracks, located wholly within one State. Street, suburban, and interurban electric railways which are not operated as a part of a general steam railroad system are also excluded. Abandonment refers to complete abandonment or cessation of service, and not to curtailment of service.⁸⁶

It has taken a number of court decisions to define clearly the relation of State to Federal authority over abandonment. In *Texas v. Eastern Texas Railroad Co.*⁸⁷ the Court held that the Interstate Commerce Commission could permit the abandonment in interstate commerce of purely intrastate railroads, but that the State still retained authority over the abandonment of its intrastate operations. It was recognized, however, that if operation of a line in intrastate commerce imposed a burden upon interstate commerce, the Federal Government could permit abandonment in intrastate commerce. The authority left to the States amounts to very little in practice because if a line abandons its interstate operations a situation is created whereby complete abandonment of the line can hardly be prevented on account of its unprofitableness.⁸⁸ In *Colorado v. United States*⁸⁹ the Commission was upheld in an order requiring the abandonment of both interstate and intrastate operations of a line located wholly within one State, because continued operation would burden interstate commerce.⁹⁰

A few generalizations can be made regarding the Commission's policy in abandonment cases, although each case must be considered as a separate problem.

(1) The Commission will not hesitate to authorize abandonments when the railroad no longer serves any useful purpose, and when its abandonment will work no great injury to the communities served. Often abandonment is caused by the exhaustion of natural resources upon which the railroad relied for traffic, or by the migration of industries to other points. Sometimes the construction of improved highways has made the abandonment of a railroad of little consequence to the communities once dependent upon it. In some instances the Commis-

⁸⁶ *Norfolk & Western Ry. Co. Abandonment*, 187 I.C.C. 66, 72 (1932); *Morris & Essex R. R. Co. Proposed Abandonment*, 175 I.C.C. 49, 52 (1931).

⁸⁷ 258 U.S. 204 (1922).

⁸⁸ For an example of this situation, see *Railroad Commission v. Eastern Texas R. R. Co.*, 264 U.S. 79 (1924).

⁸⁹ 271 U.S. 153 (1926).

⁹⁰ See also *Transit Commission v. United States*, 284 U.S. 360 (1932), *Proposed Abandonment of Detroit & Mackinack Ry.*, 138 I.C.C. 576 (1928).

sion has permitted the abandonment of a line on condition that motor-carrier service be substituted.⁹¹

(2) The financial results of operation over the line proposed to be abandoned is an important matter for consideration in an abandonment case. In an early case before the Commission it was argued that the question of profitable or unprofitable operation was largely irrelevant, and that the Commission was to pass upon the need for the service afforded by the carrier regardless of financial results. This view the Commission rejected, holding that the very fact that a line does not pay implies that its services are not greatly needed.⁹²

(3) The Commission recognizes that a branch line can be continued in operation even if operated at a loss, but it has also held that "it is contrary to the purposes of the abandonment provisions and inconsistent with the purposes of the act as a whole to require drains upon the revenue of an interstate carrier flowing from the operation of an unprofitable and unnecessary branch merely because system operations as a whole are profitable."⁹³

(4) The loss and inconvenience caused by railroad abandonment receives careful consideration by the Commission in abandonment cases. But inconvenience and decline in property values are not sufficient by themselves to require continued operation of a line.⁹⁴ A balancing of the burden imposed upon the railroad by continued operation of a line and the burden upon the public brought about by its abandonment must be made in each individual case.

From 1920 to 1943 the Commission authorized the abandonment of 29,012 miles of line in 1,971 proceedings, and denied 127 applications involving 2,816 miles.⁹⁵ The average mileage per abandonment was about 15 miles. Abandonment was authorized in about 94 percent of the cases, and denied in 6 percent. Highway competition was mainly responsible for abandonment of 58 percent of the mileage for which abandonment was authorized; exhaustion of natural resources was

⁹¹ *Abandonment of Ferry by New York, New Haven & Hartford R. R. Co.*, 150 I.C.C. 413, 415 (1929); *Long Island R. R. Co. Abandonment*, 162 I.C.C. 363, 376 (1930), 166 I.C.C. 671, 678 (1930), 175 I.C.C. 163, 166 (1931).

⁹² *Public-Convenience Certificate to Duluth & Northern Minnesota Ry.*, 71 I.C.C. 795, 799 (1922).

⁹³ *New York Central R. R. Co. Abandonment*, 254 I.C.C. 745, 761 (1944). See also *Archison, Topeka & Santa Fe Ry. Co. Abandonment*, 254 I.C.C. 767, 778 (1944).

⁹⁴ *Sumpter Valley Ry. Co. Abandonment*, 184 I.C.C. 253, 260 (1932); *Detroit, Toledo & Ironton R. R. Co. Abandonment*, 187 I.C.C. 433, 437 (1932).

⁹⁵ Interstate Commerce Commission, Bureau of Transport Economics and Statistics, *Railroad Abandonments, 1920-1943* (Washington, mimeographed, 1945), pp. 4 and 6.

responsible for 19 percent; rationalization of railroad plant for 10 percent; relocation or cessation of industries for 7 percent; and miscellaneous factors for 6 percent.⁹⁶

There has arisen some criticism of the Commission for granting abandonment applications so freely. It is contended by these critics that the Commission has not adequately protected the interest of the public. A bill which would have made it much more difficult for railroads to obtain authorization for abandonments was introduced in Congress in 1943 but was not enacted into law.⁹⁷

COMPULSORY CONSTRUCTION

Power to prevent abandonment of railroads already constructed is one thing; power to require the construction of a branch or extension is quite another. Paragraph 21 of Section 1 of the Interstate Commerce Act as amended in 1920 provides that the Commission may, after a hearing, "authorize or require by order any carrier by railroad subject to this Act . . . to provide itself with safe and adequate facilities for performing as a common carrier its car service as that term is used in this Act, *and to extend its line or lines*."⁹⁸ A proviso is attached setting up requirements that must be observed by the Commission before an order may issue. First is the requirement that the extension must be "reasonably required in the interest of public convenience and necessity," and second, "that the expense involved therein will not impair the ability of the carrier to perform its duty to the public."

Only once has the Commission issued an order requiring a carrier to extend its lines. That was in 1929 when it directed the Oregon-Washington Railroad & Navigation Company—a subsidiary of the Union Pacific—to construct a line about 187 miles long in Oregon, at an estimated cost of \$9,000,000.⁹⁹ The Commission's order was set aside by the United States Supreme Court in *Interstate Commerce Commission v. Oregon-Washington Railroad & Navigation Company*. The Court, in interpreting paragraph 21 of Section 1, said: "We . . . think the power granted by paragraph 21 is confined to extensions within the undertaking of the carrier to serve, and cannot be extended to embrace the building of what is essentially a new line to reach new territory."¹⁰⁰

⁹⁶ *Ibid.*, p. iii.

⁹⁷ For a description of the details of this bill see 72 *Traffic World* 1114 (1943).

⁹⁸ Italics ours.

⁹⁹ *Public Service Commission of Oregon v. Central Pacific Ry. Co.*, 159 I.C.C. 630 (1929).

¹⁰⁰ 288 U.S. 14, 40 (1933).

Two major considerations led the Court to this conclusion. First was the fact that the phrase "to extend its line or lines" is part of a single sentence giving the Commission power to require carriers to provide safe and adequate facilities for car service. "We should expect, if Congress were intending to grant to the Commission a new and drastic power to compel the investment of enormous sums for the development or service of a region which the carrier had never theretofore entered or intended to serve, the intention would be expressed in more than a clause in a sentence dealing with car service."¹⁰¹ The second consideration leading to a narrow interpretation of paragraph 21 was doubt regarding its constitutionality if interpreted to mean that the Commission could require a railroad to construct a new line against its will. The decision of the Court so restricts the power of the Commission to require railroads to extend their lines that the power is of little practical consequence.

Although the Oregon case was the only instance in which the Commission ever issued an affirmative order requiring new construction, a number of other cases have been before it in which exercise of the power was requested but refused.¹⁰²

SOME SPECIAL SERVICES

There are a number of special services frequently given by railroad companies. A few of these require particular mention.

DIVERSION AND RECONSIGNMENT

The terms "diversion" and "reconsignment" are used interchangeably to refer to a change in the destination or billing of a shipment either before or after it reaches the original destination. Originally, the term "diversion" referred to a change before the shipment reached the original destination, and "reconsignment" to a change made after the shipment had reached the place to which it was first billed. An essential feature of diversion and reconsignment is that the shipment moves at the regular published through rate from point of origin to final destination, plus, in some cases, a reconsignment charge. This is what makes the privilege valuable, for the through rate is ordinarily

¹⁰¹ *Ibid.*, p. 35.

¹⁰² *Cooke v. Chicago, Burlington & Quincy R. R. Co.*, 66 I.C.C. 452 (1922); *Construction of Lines in Eastern Oregon*, 111 I.C.C. 3 (1926); *Clarkston Chamber of Commerce v. Northern Pacific Ry. Co.*, 160 I.C.C. 752 (1930); *Public Service Commission of Wyoming v. Chicago, Burlington & Quincy R. R. Co.*, 185 I.C.C. 741 (1932).

less than the rate to the diversion or reconsignment point plus the rate from there to final destination.

The reconsignment privilege is of considerable importance in the commercial world. Shipments of fresh fruits, of vegetables, or of live-stock, may be shipped from a distant source of supply and started toward market, and then diverted to the most favorable market as they approach the several destinations to which they might be sent. Brokers and dealers may purchase lumber or other products, sell them while the shipments are en route and divert them to the ultimate purchaser, thus saving an extra handling of the shipment, eliminating storage, and perhaps saving unnecessary transportation. Other situations are constantly arising in the business world which make the diversion or reconsignment privilege of great value. It is now recognized in the United States as a commercial necessity.¹⁰³

Originally the Interstate Commerce Commission was inclined to treat reconsignment as a privilege which might be extended by the carriers, but which could not ordinarily be required of them.¹⁰⁴ In later years the Commission came to regard the denial of the service as unreasonable and to require its establishment or continuance.¹⁰⁵

Carriers are permitted to make a charge for the diversion or reconsignment privilege. These charges are on a per-car basis. The number of diversions that may be made is generally limited to prevent the use of freight cars as moving warehouses. If an extra reconsignment is made, it is considered as a reshipment, that is, the rate applicable is the through rate to the last reconsignment point plus the rate from there to destination. The privilege is also restricted oftentimes to prevent or discourage reconsignment when a back-haul is involved.

TRANSIT PRIVILEGES

A transit arrangement is the privilege of stopping a shipment en route to enable some process or operation to be performed on the article, and of reshipping to final destination at the through rate applic-

¹⁰³ *Central Commercial Co. v. Louisville & Nashville R. R. Co.*, 27 I.C.C. 114, 115 (1913). Advantages are discussed in *Detroit Traffic Assoc. v. Lake Shore & Michigan Southern Ry. Co.*, 21 I.C.C. 257 (1911).

¹⁰⁴ *Cedar Hill Coal & Coke Co. v. Colorado & Southern Ry. Co.*, 16 I.C.C. 387 (1909). See also *Dietz Lumber Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 22 I.C.C. 75 (1911).

¹⁰⁵ *Commercial Exchange of Philadelphia v. New York Central & Hudson River R. R. Co.*, 38 I.C.C. 551, 555 (1916); *Doran & Co. v. Nashville, Chattanooga & St. Louis Ry.*, 33 I.C.C. 523 (1915).

able from the original shipping point to destination. Milling-in-transit as applied to grain shipments is probably the most common example of this privilege. Grain is also stopped off at intermediate points under similar arrangements, for cleaning, grading, mixing, and other processes. Transit privileges are often granted on logs and rough lumber. The fabrication-in-transit privilege on iron and steel is common. There are said to be some 300 commodities commonly granted transit privileges.¹⁰⁶ The privilege is of great importance to industries not located at rate-breaking points. The general effect of the practice is to equalize the advantages of location of competing manufacturers, and to facilitate the decentralization of industry.¹⁰⁷

The theory of a transit arrangement is that there is but a single shipment from point of origin to final destination with a stop-over privilege. But since two terminal services are performed at the transit point, the cost of the service is increased. Furthermore, additional cost is incurred because of the records made necessary to prevent fraud. For this reason the carriers are permitted to exact an extra charge for the service, although they do not always do so.

A number of points regarding in-transit arrangements should be noted. Usually the materials moving to the transit point and those moving out take the same rates. When they do not, the rate applicable is that of the article with the higher rate. The full local rate to the transit point is ordinarily paid when the article moves into the transit point. When the shipment moves out of the transit point the rate applicable is the balance of the through rate from the original shipping point to final destination. The identity of each shipment is not preserved, but in order to get the balance of the through rate on a shipment from the transit point, inbound billing must be presented for an equivalent amount of tonnage. The amount which can be shipped out at the balance of the through rate is ordinarily less than the amount shipped in. This is to take care of the shrinkage in weight due to processing, thereby preventing shipments from moving out which do not represent tonnage shipped into the transit point under a transit arrangement. Under the milling-in-transit privilege the outbound tonnage is usually 1 percent less than the inbound. On barley malted in transit a deduction of 16 percent from inbound tonnage is commonly made; on corn shipped

¹⁰⁶ Wilson, G. L., *Transit Services and Privileges* (Chicago, Traffic Service Corp., 1925), p. 1.

¹⁰⁷ See pp. 53-54, *supra*.

under a shelling-in-transit arrangement the deduction is often 20 percent.

The Interstate Commerce Commission has long regarded transit arrangements as privileges which the carriers cannot be compelled to grant. "Milling in transit is a privilege which may be granted or withheld by the carrier in its discretion so long as no unlawful discrimination results therefrom."¹⁰⁸ In fact, the Commission is inclined to discourage the extension of the privilege and to criticize the carriers for being unduly liberal in granting it.¹⁰⁹ The Commission has rarely required its establishment except when necessary to do so to prevent discrimination.¹¹⁰ The Commission is particularly critical of the privilege when it causes back hauls or out-of-line hauls and therefore results in economic waste. "The theory of transit is service at some point between the points of origin and destination of the traffic, and in the direction of the movement of the traffic to the point of final destination. A back haul is contrary to the purpose of transit and should generally be permitted only to meet unusual situations. . . ."¹¹¹ The Commission, however, sometimes requires the establishment of the privilege, even if a back haul is involved, if the privilege is given at competitive points which also result in back hauls. This is necessary to prevent discrimination.¹¹² Railroads very frequently deny the privilege where back hauls will result, or impose additional charges for the extra mileage.

Some difficulty arises from the tendency to extend the transit privilege to articles which undergo a complete manufacturing process at the transit point. Usually the privilege is extended when there is a mere processing or reworking of the material shipped into the transit point and not when an entirely new product emerges.¹¹³ But flour and grain are quite different commodities, and the milling-in-transit privi-

¹⁰⁸ *Young & Cursinger v. Louisville & Nashville R. R. Co.*, 22 I.C.C. 1, 3 (1911). See also *Douglas & Co. v. Chicago, Rock Island & Pacific Ry. Co.*, 21 I.C.C. 97, 102 (1911); *Plano Milling Co. v. St. Louis Southwestern Ry. Co.*, 22 I.C.C. 360, 362 (1912).

¹⁰⁹ *Anadarko Cotton Oil Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 20 I.C.C. 43, 47 (1910); *Middletown Car Co. v. Pennsylvania R. R. Co.*, 32 I.C.C. 185 (1914). See also *Grain & Grain Products*, 164 I.C.C. 619, 653-654 (1930), and comments of individual commissioners, pp. 699, 708-709, 743-745.

¹¹⁰ E.g., *In re Transportation of Wool, Hides & Pelts*, 23 I.C.C. 151 (1922).

¹¹¹ *Stock & Sons v. Lake Shore & Michigan Southern Ry. Co.*, 31 I.C.C. 150, 153 (1914). See also *Lake Charles Rice Co. v. Louisiana Western R. R. Co.*, 69 I.C.C. 508, 513 (1922).

¹¹² See *Thomas Cotton Co. v. Illinois Central R. R. Co.*, 63 I.C.C. 89 (1921).

¹¹³ *Leader Iron Works v. Illinois Central R. R. Co.*, 182 I.C.C. 17 (1932); *Atchison, Topeka & Santa Fe R. R. Co. v. Union Wire Rope Corp.*, 1 E. Supp. 399 (1931).

lege sometimes extends to neatly packed breakfast cereals which move out of transit points.¹¹⁴

PICK-UP AND DELIVERY

In considering railroad pick-up and delivery service, it is necessary to distinguish between carload and less-than-carload freight.

As pointed out earlier in this chapter, carload freight is either placed on public "team tracks," where the cars are unloaded by the consignee, or the cars are placed on private sidings owned by the consignee. When cars are placed on private sidings for loading or unloading, what is essentially a pick-up and delivery service is being provided. It has been estimated that 88 percent of the carload tonnage in 1932 was loaded on private sidings of the shipper, and 77 percent was delivered on sidings of the consignee.¹¹⁵

Pick-up and delivery of L.C.L. freight was not generally provided by the railroads prior to the 1930's. The transportation service provided for less-than-carload freight was strictly a station-to-station service. Shippers and consignees with private sidings, however, often received a service which was comparable to pick-up and delivery through the operation of "trap-car" or "ferry-car" service. Trap-cars or ferry-cars are placed on industrial sidings for loading with L.C.L. shipments. The cars are then moved to the railroad's freight or transfer station, and the shipments are then handled as other L.C.L. shipments. Inbound freight may be delivered to industries in the same way.¹¹⁶ About 12½ percent of all L.C.L. tonnage was given collection or delivery, or both, by trap-cars in 1932.¹¹⁷

The establishment of a general pick-up and delivery service on L.C.L. traffic in the 1930's was largely the result of motor-carrier competition. One of the advantages of motor-truck transportation is the completed service that can be given. Traffic moves from factory door to the place of business of the dealer. In an effort to regain traffic lost to trucks the railroads began to experiment with pick-up and delivery service about 1931. In that year the railroads in Southern and Western territories began a limited pick-up and delivery service. In 1932 some of the railroads in New England and the Pennsylvania Railroad estab-

¹¹⁴ See 164 I.C.C. 619, 708.

¹¹⁵ Lynch, E. S., "Railroad Pick-Up and Delivery," 14 *Journal of Land & Public Utility Economics* 120 (1938).

¹¹⁶ *Trap or Ferry Car Service Charges*, 34 I.C.C. 516 (1915).

¹¹⁷ Lynch, E. S., *op. cit.*, p. 120.

lished a similar service. A number of other railroads in Eastern Territory began a like service in 1933. A characteristic of these experiments was the exaction of a charge for the service on traffic which moved by rail for distances in excess of 260 miles. On short-haul traffic the service was given without extra charge. Pick-up and delivery service became practically universal in the United States on less-than-carload traffic in 1936 when the Commission, over the protests of trucking organizations, permitted rail tariffs to become effective in Official Territory which provided this service.¹¹⁸ The service authorized was free regardless of the length of the rail haul, but minimum rates of 45 cents per hundred pounds were observed when the service was given. This plan has remained in effect throughout the United States, except that in 1938 certain eastern railroads ceased providing the service free and set up a system of charges, ranging from 5 to 10 cents per hundred pounds, when the service was provided.¹¹⁹

EMERGENCY SERVICE POWERS OF THE COMMISSION

Special service powers are given to the Interstate Commerce Commission in time of emergency such as is brought about by car shortages or traffic congestion.¹²⁰ At such times the Commission may (1) suspend car service rules, (2) require the pooling of equipment, (3) compel the joint use of terminals, including main-line tracks for a reasonable distance outside of terminals, (4) establish embargoes, or require certain commodities to be given priority, or require that traffic may only move under a permit system, and (5) route traffic to relieve congestion. These emergency powers may be exercised without a hearing.

SELECTED REFERENCES

Various aspects of railroad service and service regulation are discussed in H. B. Vanderblue and K. F. Burgess, *Railroads: Rates, Service, Management* (New York, Macmillan, 1923), chs. XIII-XX; in Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XII; in Kent T. Healy, *Economics of Transportation in America* (New York, Ronald Press, 1940), ch. 23; and G. L. Wilson, *Traffic Law & Procedure*, Part I (Chicago, Traffic Service Corp., 1942-43), chs. 4-15.

Treatises on the law of carriers contain much material on the service obligation. See D. C. Moore, *A Treatise on the Law of Carriers*, 2d ed. (Albany,

¹¹⁸ *Pick-Up and Delivery in Official Territory*, 218 I.C.C. 441 (1936).

¹¹⁹ Interstate Commerce Commission, *Annual Report*, 1938, pp. 37-38. In 1946 the Commission instituted an investigation of practices of railroads in connection with pick-up and delivery service.

¹²⁰ Paragraphs 15, 16, and 17 of Section 1.

Bender & Co., 1914); also B. K. Elliott, *Treatise on the Law of Railroads* (Indianapolis, Bobbs-Merrill, 1922). A number of others might be mentioned.

The terminal problem is discussed in W. Z. Ripley, "The Problem of Terminal Operation," 4 *Harvard Business Review* 266 and 385 (1926); M. L. Fair, "The Interstate Commerce Commission and the Railroad Terminal Problem," 44 *Quarterly Journal of Economics* 462 (1930); S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), pp. 304-315.

On railroad abandonment see C. W. Needham, "The Rights of the State and Adjacent Owners of Property in the Maintenance and Operation of a Railroad," 32 *Yale Law Journal* 247 (1923); and H. R. Trumbower, "Railroad Abandonments and Additions," 34 *Journal of Political Economy* 37 (1926); Charles Cherington, "Railroad Abandonment in New England, 1921-1937," 14 *Journal of Land & Public Utility Economics* 40 (1938); Interstate Commerce Commission, Bureau of Transport Economics and Statistics, *Railroad Abandonments, 1920-1943* (Washington, mimeographed, 1945).

The most thorough study of transit privileges is R. V. Hobbah, "Railroad Transit Privileges," Supplement to Vol. 17, No. 3, of *The Journal of Business of the University of Chicago* (1944).

On reconsignment and reconsignment rules see Interstate Commerce Commission, *Reconsignment Case*, 47 I.C.C. 590 (1917); *Reconsignment and Diversion Rules*, 58 I.C.C. 568 (1920); *Diversion and Reconsignment Rules*, 61 I.C.C. 385 (1921).

On pick-up and delivery service see E. S. Lynch, "Railroad Pick-Up and Delivery Service," 14 *Journal of Land & Public Utility Economics* 120 (1938).

On service regulation generally, see I. L. Sharfman, *The Interstate Commerce Commission*, vol. III-A (1935), pp. 55-68; on abandonment, pp. 331-348; on control of voluntary new construction, 348-367; on compulsory new construction, 367-385; on joint use of terminals, pp. 410-421.

CHAPTER XXVI

GOVERNMENT OWNERSHIP AND OPERATION OF RAILROADS

IT HAS long been considered one of the functions of the state to provide facilities for transportation. Expenditures of governments for the improvement of navigation along the coasts, for the canalization of rivers, the construction of artificial waterways, the building of highways and bridges, and more recently, the marking of airways, and construction of airports, bear witness to our adherence to this idea. Private enterprise, to be sure, has sometimes constructed canals, bridges, and roads; yet the great majority of these transportation facilities have been provided by governments. But although governments have commonly provided waterways, highways, and airways, they have rarely engaged in the business of transporting goods over them. The individual has been free to transport his own goods, or to employ carriers for hire who operated over the ways provided by the government. These carriers, as we have seen, were considered to be engaged in a public business, and were under legal obligations and restrictions not imposed on ordinary businesses. It remains true, however, that the transporting of persons and property for hire was left to private initiative and was not undertaken by the state.

It would have been consistent with the usual practice, therefore, if the governments, either State or Federal, had built the railroads, and left to private initiative the business of transporting persons and property for hire over them. But it was soon found impractical for individuals or rival transportation companies to transport goods over a given railway. The agency that built the railway soon came to have a monopoly of transporting goods over it. The practical question which then confronted the public was whether the government or private companies should own and operate the railroads.

GOVERNMENT OWNERSHIP WITH PRIVATE OPERATION

In some countries a plan has been worked out whereby the railroads are owned by the government but operated by private companies. Although this approximates the traditional scheme whereby the way is provided by the government while the carrying of persons and prop-

erty is left to private enterprise, two important differences are to be noted. Unlike the situation on canals and highways, a single company has a monopoly of transporting goods and persons over the way; and, secondly, the operating companies, and not the state, maintain the road and keep it in repair. The system of state ownership and private operation was followed in Italy from 1885 to 1905.¹ The same system has been used in Holland;² and some of the government-owned lines in India are operated by private companies.³ In the United States we have a few railroads owned by States or other governmental units but operated privately, in this case, by other railroad companies.

Proposals have sometimes been made in the United States that the Federal Government purchase the railways and lease them to private companies for operation. This brings government credit to the support of the railroads and gives the advantages of private enterprise in operation. But although this system seems to have worked satisfactorily in some countries, three difficulties inhere in the arrangement. First, a conflict of interest appears between lessor and lessee, particularly over such matters as maintenance and improvements, and compensation for the use of the line. Secondly, progress in technical improvements is more difficult if the road and the vehicles are not under common ownership. Improvements in locomotives and cars may require changes in road and track or other fixed structures. Changes are more easily made if the same organization is responsible for both the road and the equipment. Third, when the roads are owned by the government and operated by private companies, there is danger that the full cost of transportation will not be borne by the users. A part of the cost of capital and possibly a part of the maintenance will be shifted to the taxpayer. This could result in serious economic waste and uneconomical transportation.⁴

REASONS FOR PRIVATE OWNERSHIP IN THE UNITED STATES

The issue between government ownership and operation on the one hand and private ownership on the other was settled in the United States in favor of private ownership and operation. This was not the result of a reasoned conclusion after a consideration of the merits of

¹ Splawn, W. M. W., *Government Ownership and Operation of Railroads* (New York, Macmillan, 1928), pp. 88-89.

² *Ibid.*, pp. 14-15.

³ *Ibid.*, p. 241.

⁴ These conclusions are taken from the report of the Transportation Conference of 1933-34. See *Report* (Chicago, 1934), p. 7.

the two systems. It was partly the result of the financial difficulties in which the States found themselves as a result of the orgy of "internal improvements" between 1830 and 1840, and partly because private capital was willing, at least with the aid of subsidies, to build railroads in this country.

But although private corporations built and operated railroads in the United States, the public nature of the business is recognized by the courts. As stated by the United States Supreme Court in an early case: "That railroads, though constructed by private corporations and owned by them, are public highways, has been the doctrine of nearly all the courts ever since such conveniences for passage and transportation have had any existence."⁵ And in *Smyth v. Ames*, the Court said: "A railroad is a public highway, and none the less so because constructed and maintained through the agency of a corporation deriving its existence and powers from the State. Such a corporation was created for public purposes. It performs a function of the State."⁶

EXTENT OF GOVERNMENT OWNERSHIP THROUGHOUT THE WORLD

In 1937 the total railway mileage of the world was 756,781 miles.⁷ Of this nearly 43 percent was state owned. Although somewhat less than half the railway mileage of the world is state owned, government ownership predominates in more than half the countries of the world. Among the countries in which the railroads in 1937 were all or nearly all owned by the government are: Australia, Belgium, Bulgaria, China, Czechoslovakia, Germany, Hungary, Italy, Jugoslavia, New Zealand, Norway, Poland, Roumania, and Russia. Among those in which the railroads are all or nearly all privately owned are: Argentina, Eire, Great Britain, Northern Ireland, Spain, and the United States.

THE GOVERNMENT-OWNERSHIP CONTROVERSY

From time to time government ownership and operation of railroads is advocated for the United States. The discussion assumes particular intensity whenever some crisis develops in transportation affairs. The subject has been heatedly debated, for it arouses violent prejudices. At

⁵ *Olcott v. Supervisors*, 83 U.S. 678, 694 (1872).

⁶ 169 U.S. 466, 544 (1898).

⁷ *Universal Directory of Railway Officials and Railway Year Book, 1945-1946* (London, Directory Publishing Co., 1945), pp. 398-399.

one extreme are the Socialists who believe that all basic industries should be owned and operated by the state. At the other extreme are the conservatives who fear that government ownership of railroads would be the entering wedge of Socialism. Between these two extremes are the vast majority of people who are not greatly concerned about the controversy, and who consider the problem as one of expediency. If government ownership and operation seems to offer better results than private ownership and operation, they will not hesitate to adopt it. But as long as private ownership and operation are reasonably satisfactory and free from abuses, there is little incentive to change the system. Meanwhile the debate goes on, chiefly between a small minority desirous of bringing about public ownership and a larger minority which is greatly concerned lest the movement gain headway.

But the decision between government ownership and private ownership is never made by an impartial weighing of the merits and demerits of the two systems; it is determined largely by circumstances. A consideration of the circumstances which brought about government ownership in other countries will make this point clear. A military motive has played an important part in effecting government ownership and operation of railroads in some countries. This was true of Germany and of Japan. Political considerations have likewise controlled. The construction of the Intercolonial Railway by the government of Canada was for the purpose of uniting the provinces. The political motive played a part in the acquisition of railway lines by Prussia and other German states. Closely allied with the above is a desire to be independent of foreign capital. This was a factor in Belgium and in Switzerland. Perhaps the most common reason for inducing governments to undertake the construction of railroad lines has been the fact that, under the peculiar conditions existing at the time, private capital was not interested. This accounted for much of the early state construction of railroads and canals in the United States. It accounted for state construction in Italy, in Australia, and in New Zealand. Still another reason that has led to government ownership and operation has been the financial failure of privately owned lines. In many cases these lines have been subsidized by government loans, guaranty of interest, or guaranty of the principal of railroad bonds. In case of continued default the state is likely to take over the roads. The state system in France was acquired for this reason, and the same was true of the principal state-owned lines in Brazil. An excellent illustration of this motive is provided by the

Dominion of Canada. The railroads now comprising the Canadian National system were acquired by the government in this way.

Since government ownership is usually brought about by some condition or set of circumstances that makes it the logical arrangement, it is more or less useless to engage in an argument concerning the desirability or undesirability of government ownership. Such a debate, in addition to being useless, is particularly unprofitable because it must deal with uncertainties and probabilities. No one knows just how government ownership would work out in the United States. Its proponents can paint rosy pictures of the results which would follow its adoption. Its opponents can paint dark pictures of the results which would follow. Foreign experience is not wholly convincing. Circumstances differ so greatly that comparisons are of little value. There is a difference of opinion regarding the accomplishments of government ownership in various countries. Government-ownership advocates find it a success nearly everywhere that it has been tried. Its opponents often assert that it has almost universally failed. Even investigators who desire to present an impartial picture of the actual working of government ownership are inclined to see justification of their own beliefs in the examples which they study.

In the following pages no attempt is made to argue for or against public ownership of railroads. Certain possible advantages of government ownership will be presented, and the dangers and possible difficulties of the system will be pointed out. But rather than have his views left to inference, the author wishes to state his own position on the question. Government ownership, although it has certain advantages and would solve certain problems that trouble us now, would not prove a cure for all of our present transportation problems, and it would create a new set of problems with which to contend. On the other hand government ownership would not be the dire calamity that is often pictured by alarmists if a reasonable amount of intelligence and sincerity of purpose were applied to the task of making it work.

ADVANTAGES OF GOVERNMENT OWNERSHIP

We may now turn to a consideration of the major advantages of government ownership and operation as compared with private. It is assumed in the following discussion that if government ownership of railroads were to come in the United States it would be the Federal Government which would take over and operate the railroads.

ABILITY TO OBTAIN NEEDED CAPITAL

One of the first advantages of government ownership would be the ability to obtain new capital when needed. The difficulty of raising new capital, particularly in periods when railroad earnings have been low, has undoubtedly retarded improvements in railway plant which would have been made had capital been forthcoming on easy terms. Under government ownership the difficulty of obtaining new capital would cease. New capital requirements would be met by the issuance of government bonds. Public credit would be used to aid in raising railway capital. Unless the credit of the government was impaired by reckless financing, capital could be obtained without difficulty.

SOLUTION OF THE WEAK-AND-STRONG-ROAD PROBLEM

As pointed out elsewhere,⁸ government ownership and operation of the railroads would largely solve the weak-and-strong-road problem. The revenues from the stronger parts of the railroad system would be used to support the weaker parts. It is the existence of a large number of privately owned railroads, varying greatly in their earning power, that now makes it impossible to support the whole railroad system from earnings that are adequate for the railroads as a whole. Of course there is danger, under government ownership and operation, that parts of the railroad system that might well be abandoned would continue in operation, thus constituting a drain upon the entire system.

REDUCED COSTS OF TRANSPORTATION

Under government ownership and operation of railroads transportation cost could be reduced, and this in turn might be reflected in lower rates. First, it is probable that capital costs would be lowered. If the government were to acquire the railroads, it would issue bonds to pay for the properties acquired or to exchange for the outstanding stocks and bonds of the railway companies. What the capital charges would be, after the transfer of the railroads to the government, would depend upon two factors—the rate of interest on the bonds, and the price paid for the railroads.

The rate of interest on government bonds is lower than on the bonds of private corporations, and less than the over-all return allowed on public utility property. It is sometimes argued that taking over the railroads by the government and issuing bonds to pay for them would

⁸ Pp. 429-430, *supra*.

raise the rate of interest demanded on government obligations. If the railroad system were to be put on a self-supporting basis, or nearly so, there is little reason to believe that the floating of bonds to purchase the lines would have an adverse effect on government credit or raise the interest rates on government borrowing.

The price to be paid for the railroads might be a matter of bargaining between the railroads and the government, or it might be determined through condemnation of the properties. Although governments are usually very generous when private property is taken for a public use, it seems improbable that the government would have to pay more than the rate-making value of the railroads. Based on earning power the price would be less, if we consider the railroads as a whole. It would be argued, however, that the government should pay no less than the "fair value"—the value on which the rate level should be based. If we may judge from the estimates of rate-making value made by the Interstate Commerce Commission for 1945, the government might have to pay between \$19,500,000,000 and \$20,000,000,000 for the railroads.⁹

It seems probable that in spite of a generous purchase price for the railroads, capital costs under government ownership might be reduced. But it must be remembered that the railroads have not generally earned a fair return, and hence the saving in capital cost would be partly hypothetical. It must also be remembered that the capital charges would largely be fixed charges. A bill introduced in Congress in 1935 provided for the taking over of the railroads by a government-owned corporation at their commercial value, the roads to be paid for partly by the issuance of guaranteed debentures carrying a fixed rate of interest, and partly by income bonds on which interest would be paid if earned. To the extent that income bonds were issued to finance the purchase of the railways, there would be no fixed capital charges, but it is doubtful if holders of railroad securities would be willing to accept any substantial amount of income bonds as part of the purchase price of the roads, particularly if they feared the possibility of political management of the roads after they were acquired by the government. It is possible therefore that under government ownership, the fixed interest charges of the railroads would be higher than they are at present.

A second saving under government ownership would be possible through the gradual amortization of the government indebtedness incurred in purchasing the lines. During the process of amortizing the

⁹ See *Increased Railway Rates, Fares, and Charges*, 1946, 264 I.C.C. 695, 727 (1946).

debt incurred in buying the railroads, rates might be higher than if amortization were not undertaken; but once the debt was substantially reduced by this process, a permanent saving in interest charges would result, except as new borrowing for capital expenditures occurred. Under private ownership no attempt is made to amortize the capital investment in railways. Railroad bonds are rarely paid off without issuing new bonds, and even if the indebtedness is reduced by debt retirement, the rate base remains as it was before.

A third saving possible under government ownership would be through unified operation, and the elimination of unnecessary duplication and other competitive wastes. Many of these wastes have been mentioned in connection with railroad competition. Savings from this source would include the elimination of circuitous routing and cross-hauling, the abandonment of unnecessary lines, abolition of much inter-line accounting, elimination of much traffic solicitation and advertising, and the consolidation of repair shops. Opponents of government ownership say these economies can be obtained without government ownership by means of consolidation. This is true, but the public may be unwilling to see the complete elimination of competition if the railways remain in private hands. The opponents of government ownership also point out that the possible economies might be offset by less efficiency in management and by the maintenance of a larger force of employees. This is a possibility which precludes any definite conclusions concerning the savings that would be effected under government ownership.

One other source of saving under government ownership should be mentioned. This is the elimination of further increases in the rate base that are due to rising land values. Under the system of valuation for rate-making purposes which has been used in the past, land is included at its current value. Because of the upward trend in land values this element tends to become an ever greater item in railroad valuations, particularly in the valuation of railroad terminals and the approaches to them in large cities. The nationalization of railroads would permit society rather than private individuals to benefit from increases in the "value" of railway lands.

A SUBSTITUTE FOR REGULATION

Government ownership is a substitute for the system of private ownership and public regulation. The advocates of government ownership believe that it would be far superior to public regulation. Two

main advantages are seen in the abandonment of regulation. Regulation is expensive. Under government ownership the constant struggle between the owners of railroads and the regulatory authorities would cease. With it would go the expense of commission hearings, and of the long drawn-out litigation for which the public eventually pays. This argument must be discounted to some extent because some degree of regulation would be necessary even under government ownership in order to protect shippers from arbitrary rate adjustments and unfair practices at the hands of the railroad administration.

Advocates of government ownership also believe that government ownership and operation would be preferable to regulation because it would eliminate the danger of political corruption which often results from the attempts of the regulated industries to control the regulating authorities. We have not the space here to list even the more important examples of political corruption, and of control of legislatures, commissions, and courts by railroads, which have occurred in the United States. Many of the advocates of government ownership despair of effective regulation because of the strength of the corrupting influences. They believe that corruption is inevitable as long as the railroads are privately owned, and that regulation is bound to fail. Although there have been examples of railroad control of regulatory agencies in the United States, our extended study of railroad regulation does not bear out the conclusion that government regulation has been a failure. It has not prevented all abuses, but it cannot be said that our principal regulatory bodies are under the domination of railroad companies.

Admittedly, government ownership of railroads would eliminate the particular type of political corruption that goes with any attempt to check private gain by public regulation. But under government ownership there would still be private interests with something to gain by influencing or controlling the management of the railroads. Hence opportunity for corruption would exist.

ELIMINATION OF STRIKE THREAT

Another advantage of government operation is the elimination of the strike threat. We have not been greatly troubled by railroad strikes in recent years, although there have been frequent strike threats. But friction between railroad management and employees has caused disastrous strikes in the past. These strikes have caused great loss and inconvenience to the public. Our dependence upon a regular movement

of commodities makes a railroad strike a very serious matter. The advocates of government ownership maintain that the government would be a fairer employer of labor, and that railroad strikes and the resulting interference with transportation would cease. Although strikes have occurred on state railways in other countries, there is much to support the argument that less difficulty would arise from this source under government ownership.

DANGERS OF GOVERNMENT OWNERSHIP

We have described what seem to be the principal advantages that might result from government ownership. But there are dangers and problems also. These are not set down here in an argumentative spirit but in order to present both sides of the picture. These disadvantages might not all materialize if government ownership were adopted. In fact there is good reason for believing that many of them could be overcome if ability were directed to the task. The possible dangers, however, should be recognized.

THE "SPOILS" SYSTEM

It would be unfortunate if government ownership of railways should result in an extension of the "spoils" system, that is, if railway positions as employees or officers should be offered in exchange for political favors or party regularity. Political interference with the selection of employees and managing officers should be prevented at all cost. Commissioner Eastman, who was favorably inclined toward ultimate government ownership, recognized this danger. "It is clear," he said, "that the railroads cannot be efficiently operated if they are to become tools of political parties."¹⁰ Eastman believed that political influence could be removed from the selection of employees and officers if ownership of the railroad properties were vested in a corporation of which the Federal Government was the stockholder, and which would be administered as an independent business enterprise. He also suggested that it should be made a penal offense for the trustees or any of their subordinates to appoint, remove, or retain officers or employees at the solicitation of any officer of the government or political party organization.

LOSS OF EFFICIENCY

Another danger in government ownership is in loss of efficiency. This might result from the absence of competition between railroads,

¹⁰ *Regulation of Railroads*, 73d Cong., 2d sess., Sen. Doc. No. 119 (1934), p. 16.

from the absence of the profit motive, or from the employment of inferior workers and less capable managers. Not only less efficient operation, but also a lack of interest in improving service, or an unwillingness to experiment with new inventions and mechanical improvements might ensue. No one can predict with certainty how serious this difficulty would be. It is not impossible to reward enterprise and efficiency in a government-owned enterprise, nor to obtain capable managers, and we know that many state-owned and operated railroads are not inefficient or backward in developing new inventions. A study of the operating efficiency of the Canadian National Railway does not support the belief that lines operated by the government are always inefficient.¹¹

POLITICAL INTERFERENCE IN LABOR RELATIONS

A possible danger in government ownership is in political interference in behalf of railroad labor. The number of employees on the Class-I railways in 1940 was over 1,000,000. There is danger that the favor of so large a group of voters would be sought by politicians. This might easily lead to the enactment of legislation interfering with wages and working conditions in the interest of railway workers, and creating a preferred class of labor at the expense of the public. That this is a possible danger none can deny. But the same danger exists under private ownership, and Congress has from time to time interfered in the relations between railroad employees and management. The enactment of the Adamson Eight-Hour Day Law in 1916, and the legislation in 1934 to establish a railroad pension system are cases in point.¹²

UNWISE CONSTRUCTION PROGRAMS

Waste and extravagance in the construction of new mileage and in the improvement of transportation facilities constitute another danger of government ownership. Political pressure brought by representatives of particular geographical areas might determine the amount and character of new capital expenditures for railroad facilities. This would be particularly true if direct appropriations of Congress for each project were required. A process of "log-rolling" would result, akin to that which often accompanies the appropriation of money for post offices, for the development of rivers and harbors, and other public works.

¹¹ Fournier, Leslie T., "The Canadian National Railway vs. The Canadian Pacific A Comparative Study," 39 *Journal of Political Economy* 369 (1931).

¹² We are not here concerned with the wisdom or soundness of these particular measures.

Commissioner Eastman suggested that so far as new construction is concerned this matter could be controlled by leaving with the Interstate Commerce Commission the same powers that it now exercises over railroad construction.

PREFERENTIAL RATES

Another danger in government ownership is the possibility of political interference on behalf of special interests or localities to obtain preferential rates. Even under private ownership and operation, pressure is often brought to bear by sectional interests or special groups to obtain favorable rate adjustments. Our system of regulation has withstood this influence very creditably. This danger under government ownership could be obviated in part by leaving the Interstate Commerce Commission with jurisdiction over rate relationships and the reasonableness of rates.

PROPRIETORSHIP ATTITUDE OF THE GOVERNMENT

One difficulty that may arise under government ownership is that the government as owner and operator of the railroads would assume an attitude somewhat similar to that of private owners. Anxious to make a profitable showing, the railroad administration might not be inclined to extend fully adequate service to its patrons, or to charge moderate rates on particular hauls and on particular commodities. Furthermore, in competing with waterways and highways, the government might resort to the same objectionable practices that private management has often adopted. Hence, rebates and discriminatory rates might occur. And in its desire to make its operations succeed, the government might take an antagonistic attitude toward the development of rival methods of transportation, such as waterways and highways, even where the development is economically justified.¹³ This is another reason why, under government ownership, there should be a tribunal to see that just grievances of shippers are redressed.

BURDEN OF UNPROFITABLE UNDERTAKINGS

Under government ownership the burden of unprofitable and unwise undertakings would fall upon the taxpayer. This, more than any other single cause, explains the reaction against State participation in public

¹³ For instances in which this has occurred see Long, W. Rodney, *Railway and Highway Transportation Abroad*, U.S. Dept. of Commerce, Bureau of Foreign and Domestic Commerce, Trade Promotion Series, No. 155 (1935).

works during the thirties and forties of the last century. When a private enterprise fails, investors take their losses; the enterprise goes out of existence or continues in operation with a lightened capital structure. Under government ownership the bonds issued to build or acquire the lines that subsequently prove unprofitable remain a burden on the taxpayer. This danger in government ownership should give us particular concern at the present time when many question the ability of the railroads to recover the business which they have lost, when thousands of miles of line must be considered as unprofitable and should perhaps be abandoned, and when millions of dollars worth of property may prove to be obsolete as a result of the development of the newer methods of transportation. If railroad stockholders lose hope of operating their roads at a profit they will be glad to sell out to the government.

THE ORGANIZATION PROBLEM

Government ownership in the United States would create a difficult problem of organization. Many persons believe that our larger railroads are large enough, perhaps too large, for the most efficient administration. To combine the railroads of the United States into one vast system would make the organization problem much more difficult. Undoubtedly the system could be broken up into parts for the purposes of administration, but this does not entirely solve the problem. Commissioner Eastman intimated that a comparatively long period of experimentation would be necessary before the best form of organization could be worked out.¹⁴

RIGID RATE STRUCTURES

Government-owned railroads often adopt rather rigid and arbitrary rate structures. In the United States the principle of charging what the traffic will bear has resulted in a rate structure that was designed to move the traffic. Under the resulting rate adjustments, however uneconomical and wasteful they may have been, industry has grown up and a territorial division of labor has been established. The substitution of a more rigid rate system, with greater emphasis on distance and less on competition and other modifying factors, would require many changes in industrial location, habits of specialization, and other adjustments—with resulting financial losses. This might in the long run represent an economic gain rather than loss, but the immediate result would be disturbing.

¹⁴ Federal Coordinator of Transportation, *Regulation of Railroads*, 73d Cong., 2d sess., Sen. Doc. No. 119 (1934), p. 19.

MISLEADING ARGUMENTS AGAINST GOVERNMENT OWNERSHIP

We have listed a substantial number of difficulties and dangers that would be encountered under government ownership. Many of these could be overcome if a concerted effort were made. In addition to the difficulties mentioned above, which are often used as arguments against government ownership, a number of misleading statements and arguments about government ownership are commonly made. A few of these deserve mention.

First is the argument that government ownership is Socialistic, and not in conformity with our national institutions. This, in reality, is not an argument, but an attempt to arouse an unfavorable emotional response to government-ownership proposals, thus preventing a consideration of the subject on its merits. Government ownership of railroads is no more nor less Socialistic than publicly owned parks and swimming pools, public schools and universities, public waterworks, the post office, the postal savings system, public highways, bridges, and waterways, and many other undertakings which are public enterprises. Many of the enterprises listed above have been, or now are in some instances, left to private initiative. The sole question is whether government ownership and operation of railroads would give better results than private ownership and operation. It is a question of expediency, and not one of principle.

The second misleading argument against government ownership is that experience with operation of the railroads by the Federal Government in World War I is evidence that the Government cannot operate railroads successfully. An enormous amount of misinformation has been spread regarding the administration of the railroads during that war. But every careful and impartial observer who has studied that experience concludes, popular opinion to the contrary notwithstanding, that the Government made a very creditable showing during the period.¹⁵ To be sure, some mistakes were made, but the experience certainly affords as many arguments for government operation as it does against. As a matter of fact, war conditions were so abnormal that neither the argu-

¹⁵ See the following studies of this period: Jones, E., *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. XXII; Cunningham, W. J., *American Railroads* (New York, A. W. Shaw Co., 1922), chs. 9-14; Sharfman, I. L., *The American Railroad Problem* (New York, Century, 1921), chs. 4-5; Miller, S. L., *Inland Transportation* (New York, McGraw-Hill, 1933), ch. XI; Daggett, S., *Principles of Inland Transportation* (New York, Harper's, 1934), ch. XXXI; Hines, Walker D., *War History of American Railroads* (New Haven, Yale Univ. Press, 1928).

ments for nor against government ownership based on that period can be considered as conclusive.

A third type of argument against government ownership is to compare the financial results of operation on certain state-owned lines with certain privately owned lines. The inference which the reader is supposed to draw from these comparisons is that the government-owned lines are inefficient and usually operate at a loss. One of the most frequent comparisons used for this purpose is between the Canadian Pacific Railway and the Canadian National Railway. The comparison fails to recognize that the Canadian National system was a combination of unrelated lines, not projected as a complete system, and consisting of lines which had long operated at a loss under private management. In fact, the reason the lines came into the possession of the government was that they were unprofitable and the government had become financially involved on account of the huge advances and guaranties which it had extended. In many countries having both state-owned and privately owned lines, the state-owned lines are the ones which could not be operated at a profit under private management, while the ones remaining in private hands are those which were able to meet their obligations. Such was the case in both France and Brazil, as well as in Canada. No conclusions regarding government ownership can be drawn from comparisons of earnings unless it can be shown that such losses as may have occurred on the state-owned lines were due to government ownership and not to other causes. The mere fact that many government-owned lines operate at a loss proves nothing. One could argue as well that the financial failure and subsequent reorganization of many of our privately owned railroads in the United States is proof that private ownership and operation is a failure.

WILL GOVERNMENT OWNERSHIP COME IN THE UNITED STATES?

We have taken the position that government ownership of railroads is not likely to be brought about in the United States through convincing the American people, by argument, that it is superior to private ownership and operation. Neither is government ownership likely to be prevented by propaganda against it if conditions arise which make it the logical solution. Two conditions might arise which would bring government ownership in the United States.

First, if regulation should fail to protect the public from exploitation, or from serious discrimination, government ownership would come

in short order. The demand for public ownership of public utilities has often been stronger than the demand for government ownership of railroads. Undoubtedly this is due to a feeling that public utility regulation has not prevented extortion. Regulation of railroads has been more effective. What is perhaps of more importance, economic conditions, rather than the action of regulatory authorities, have kept rates from being higher. Lower rates have not been defeated by fantastic valuation claims and prolonged litigation as in the public utility field. The strongest demand for public ownership has always come from the groups which distrust regulation and believe that exploitation of the public is inevitable under private ownership. If regulation proves a failure the public will turn to government ownership as the only alternative.

Government ownership might also be brought about by another cause. If the railroads are unable to attract capital to their industry, government ownership will eventually follow. We cannot dispense with the railroads. If private capital will not carry on, the public will be forced to take over the lines. Failure to attract capital to the industry might result from a niggardly rate policy of regulatory authorities. More likely it would come about as the result of uncontrolled competition, or from the economic impossibility of charging rates which will give a fair return on railroad property. If the opportunity for obtaining a return on the capital invested in railroads disappears, the holders of railroad securities will be only too eager to sell out to the government. In view of the rapid development of competing forms of transportation and the failure of the railroads to meet the situation, the possibility of government ownership via this route is not remote. Government ownership resulting from this cause might be brought about gradually. It would likely be preceded by a period of loaning money or extending credit to railways under private management. When the financial interest of the government became too large, the transition to government ownership would appear as a logical and necessary step. This, we have seen, is the manner in which the state railways in France, the government lines in Canada, and in other countries, came into the possession of the government. When the Reconstruction Finance Corporation began loaning money to railroads after the collapse of 1929, many observers believed that we might have entered upon a policy that would eventually lead to government ownership. If the Government should find it necessary to advance funds to railways in large amounts, government ownership might easily follow.

SELECTED REFERENCES

There is an enormous amount of literature on government ownership, much of it extremely partisan. Only a very limited list of references will be attempted here. Typical of the more extreme utterances in behalf of government ownership is Albert M. Todd, *Public Ownership of Railroads*, a statement before the Committee on Interstate Commerce, U.S. Senate, 65th Cong. 3d sess. (Washington, Government Printing Office, 1919). Other references in behalf of government ownership and operation are the following: D. J. Lewis, *Railway Nationalization*, Sen. Doc. No. 53, 56th Cong. 1st sess. (1900); Frank Parsons, *The Railways, the Trusts and the People, Part II—The Railroad Problem* (Philadelphia, C. F. Taylor, 1905); C. S. Vrooman, *American Railway Problems* (London, Henry Frowde, 1910). More moderate in tone are: J. B. Eastman, "The Advantages of National Operation," 86 *Annals of the American Academy of Political & Social Science* 77 (1919); Statement on Government Ownership, in National Association of Railroad and Public Utilities Commissioners, *Proceedings of the 39th Annual Meeting* (1927), pp. 364-374; "A Plan for Public Ownership and Operation," 159 *Annals of the American Acad. of Political and Social Science* 112 (1932); *Regulation of Railroads*, 73d Cong., 2d sess., Sen. Doc. No. 119 (1934), pp. 13-21. Another good discussion which is favorable toward government ownership is Ralph L. Dewey, "Government Ownership and Operation of Railroads," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 278-303.

The following references are perhaps the best in opposition to government ownership: S. O. Dunn, *Government Ownership of Railroads* (New York, Appleton, 1913); and by the same author, *Regulation of Railways* (New York, Appleton, 1918), chs. XI-XVI; E. R. A. Seligman, "Arguments for and against Government Ownership and Operation of Railroads," 5 *Journal of the National Institute of Social Sciences* 1 (1919); W. M. Acworth, *Historical Sketch of Government Ownership of Railroads in Foreign Countries* (London, John Murray, 1920); Lewis C. Sorrell, *Government Ownership and Operation of Railways for the United States* (New York, Prentice-Hall, 1937); W. M. W. Splawn, *Government Ownership and Operation of Railroads* (New York, Macmillan, 1928). The last-mentioned book contains much information about ownership and operation of railroads in other countries.

Two books which attempt to discuss the problem with impartiality are E. Jones, *Principles of Railway Transportation* (New York, Macmillan, 1924), ch. XXIV; and I. L. Sharfman, *The American Railroad Problem* (New York, Century, 1921), ch. VI. A collection of papers by various authors on both sides of the question is E. C. Buehler, ed., *Government Ownership of Railroads* (New York, Noble & Noble, 1939).

What is most needed on this question is a series of careful studies of government ownership in countries which have that system. A study of this type is J. S. Duncan, *Public and Private Ownership of Railways in Brazil*, Columbia University Studies in History, Economics, and Public Law, No. 367, (1932).

CHAPTER XXVII

PIPE LINES

PIPE lines constitute a specialized transportation system for the movement of crude oil, gasoline and other liquid products of petroleum, and natural gas. There has been some speculation concerning the possibility of using pipe lines for the transportation of certain other commodities, including alcohol, wheat, and coal, the latter either in pulverized or in hydrogenated form.¹

OIL PIPE LINES

At the beginning of 1946 there were approximately 144,000 miles of oil pipe line in the United States, representing an investment of about \$1,500,000,000.²

CRUDE-OIL LINES

Pipe lines for the transportation of crude oil are the more extensive, comprising approximately 129,000 miles. Of this mileage approximately 55,000 miles are gathering lines, and 84,000 miles are trunk lines.³

Gathering lines connect the individual oil wells with the trunk lines. They are usually 2 to 4 inches in diameter, and are often laid on the surface of the ground. They are easily relocated as new wells are opened or old ones become exhausted.

Trunk lines vary in diameter from 2 to 26 inches. Eight-inch pipe, however, is the predominant size.⁴ Pumping stations are located at intervals along the pipe-line route, commonly 35 to 40 miles apart, although the distances between them vary with the topography of the country, the size of the pipe, and the viscosity of the oil. Sometimes crude petroleum is heated to lessen its viscosity and facilitate pumping. Storage tanks are generally a necessary adjunct of the pipe-line system.

¹ See "Advocates the Transportation of Coal in Pipe Lines," 53 *Power* 261 (1921); Orrok, G. A., and Morrison, W. S., "Pipe Line Transportation of Anthracite and Bituminous Coal, etc," 54 *Power* 699 (1921); "Sees Possibility of Piped Coal," *Iron Age*, April 30, 1936, p. 60; "Patent Granted for Coal Pipeline," Association of American Railroads, *Weekly Bulletin*, No. 214, Sept. 12, 1938, p. 9.

² Surplus Property Administration, *Government-Owned Pipe Lines* (1946), p. 9.

³ *Ibid.*

⁴ Interstate Commerce Commission, Bureau of Transport Economics and Statistics, Statement No. 4432, *War-Built Pipe Lines and the Post-war Transportation of Petroleum* (Washington, 1944), p. 1.

Crude oil usually moves through pipe lines at a rate of from 1 to 5 miles per hour.⁵ Successive lots of oil, even of different grades and characteristics, can be transported through pipe lines without very much mixture of the batches. Dyed fluids are sometimes inserted between the "slugs" of oil to separate the lots.

DEVELOPMENT OF OIL PIPE LINES

The first pipe line built for the transportation of crude oil was constructed in western Pennsylvania in 1865. It was laid with 2-inch pipe and was about 4 miles in length. The cost of transporting oil by means of this pipe was considerably less than the charges exacted by

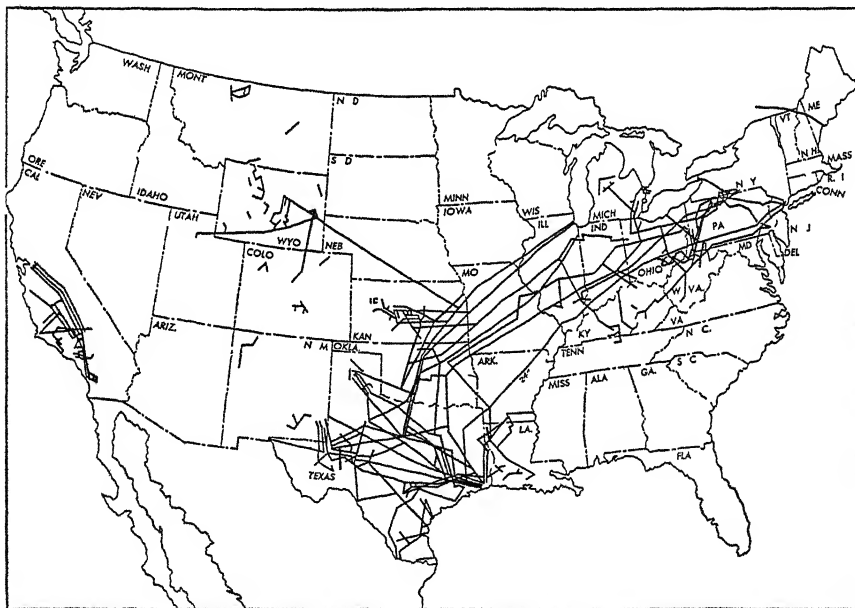


FIG. 46.—Crude-Oil Pipe Lines.⁶

teamsters. The success of this line led to the construction of other lines, and in a few years the oil fields in the Appalachian region were connected by pipe lines to refineries or to railroads.

The important California, Gulf coast, and mid-continent oil fields are now supplied with an extensive system of pipe lines, extending

⁵ Federal Coordinator of Transportation, Section of Transportation Service, *Freight Traffic Report*, vol. II (1935), p. 69.

⁶ Map from Association of American Railroads, Railroad Committee for the Study of Transportation, *Report of Subcommittee on Pipe Line Transport* (1944), p. 159.

from the oil fields to the seaboard or to refineries. The cheapness of pipe-line transportation has facilitated the development of refining at points easily accessible to markets but at great distances from the oil fields. The present system of crude-oil pipe lines is shown in Figure 46.

An important feature of pipe-line development has been the close affiliation between the trunk lines and the oil companies. After the dissolution of the Standard Oil Co. in 1911, the pipe lines affiliated with Standard became nominally independent. With the exception of eight pipe-line companies resulting from this dissolution, nearly all trunk lines are owned or controlled by oil companies. It has been recently stated that before World War II no one outside of the petroleum industry had any substantial interest in petroleum pipe lines.⁷ Because of this close affiliation between pipe lines and oil companies, the pipe lines are sometimes considered as mere plant facilities of the refineries.

During World War II the Federal Government built two crude-oil lines. The longest was the "Big Inch," extending from Longview, Texas, to the New York-Philadelphia refining area. This line is 1,340 miles long and cost nearly \$78,500,000. Operation of this line was begun in 1943 and continued until 1945. The other crude-oil line constructed by the Government was the Southwest Emergency Pipe Line from Corpus Christi to Houston, Texas.⁸ This line is 154 miles long and cost \$6,100,000.

GASOLINE OR PRODUCTS LINES

Pipe lines used for the transportation of gasoline or other liquid products of petroleum are called "products lines." The transportation of gasoline by pipe line began in 1930. In that year the Tuscarora Pipe Line Co., controlled by the Standard Oil Co. of New Jersey, began using an old crude-oil pipe line for transporting gasoline from its refineries on New York Harbor.⁹ The perfection of the process of electric welding led to the rapid development of special gasoline pipe lines. Prior to this time the leakage of gasoline at the pipe-line joints made extensive use of pipe lines for the transportation of gasoline impracticable.

Products lines, like the crude-oil lines, are owned by or are affiliated with oil companies. The only exceptions are the wartime pipe lines built by the Federal Government. Of these the "Little Big Inch," or

⁷ Surplus Property Administration, *op. cit.*, p. 10.

⁸ This line is a converted and reconditioned natural-gas line.

⁹ Moulton, H. G., *The American Transportation Problem* (Washington, Brookings Institution, 1933), p. 707.

"Little Inch," mostly parallel to the "Big Inch" and connecting the Texas Gulf Coast refinery area with the New York area, is the most important. This line is 1,475 miles long, and was built at a cost of \$67,300,000.¹⁰ Operation of this line was begun in 1944 but was discontinued in 1945. The gasoline or products lines are shown in Figure 47.

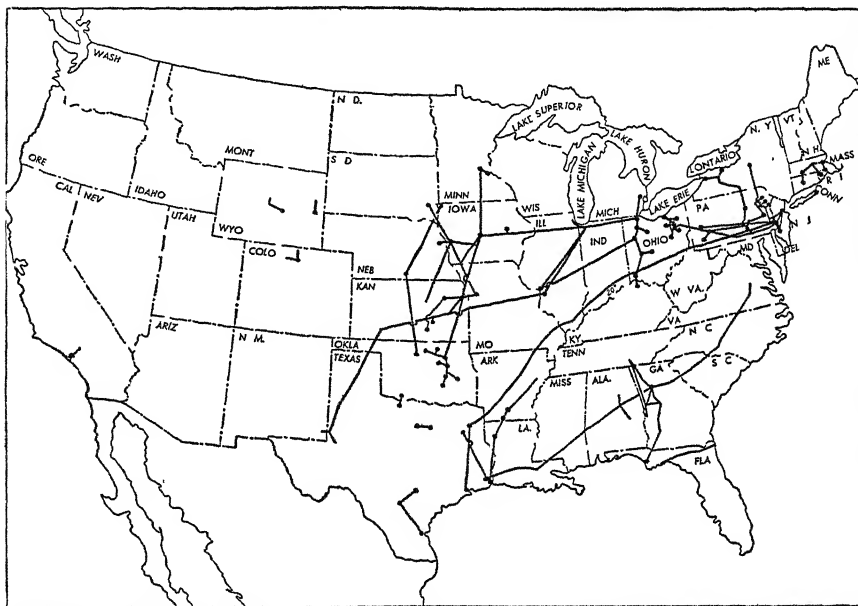


FIG. 47.—Gasoline or Products Lines.¹¹

The development of pipe lines for the transportation of gasoline and other petroleum products brought a new influence to bear on the location of petroleum refining. Previously the low cost of transporting crude oil and the comparatively high cost of transporting gasoline favored the location of refineries near large consuming markets. The development of gasoline pipe lines threatened to change this situation. Gasoline pipe lines have not, however, given the refineries located near the oil fields an advantage over more distant refineries. In fact,

¹⁰ Surplus Property Administration, *op. cit.*, p. 6. Other products lines built by the Government were the Florida Emergency Pipe Line (200 miles) across the northern part of the Florida peninsula; the Plantation Extension Pipe Line (179 miles) from Greensboro, North Carolina, to Richmond, Virginia, and the Ohio Emergency Pipe Lines (82 miles) from Tiffin to Doylestown.

¹¹ From Association of American Railroads, Committee for the Study of Transportation, *Report of Subcommittee on Pipe Line Transport* (1944), p. 160.

crude oil can be transported with greater facility than its more volatile derivatives. It has been asserted that the gasoline pipe lines were constructed to relieve an excess development of refining capacity near the oil fields where the market for gasoline was limited. Thus gasoline pipe lines were laid to relieve a situation brought about by errors in plant location.¹²

VOLUME OF PIPE-LINE TRAFFIC

In 1941, pipe lines reporting to the Interstate Commerce Commission transported about 74 percent of the total crude petroleum received at refineries. Tanker vessels transported about 23 percent, and railroads and trucks about 3 percent.¹³ It is apparent that the railroads carry only a small percentage of the crude oil. Railroad traffic in crude oil is principally from new fields to which pipe lines have not been laid, from fields that produce so little oil that the construction of pipe lines is not justified, special movements of one sort or another, and some shipments to small refineries.

Although the railroads carry only a small percentage of the total crude petroleum shipped, they carry the largest share of gasoline and other liquid products of petroleum. In 1941 the railroads originated 39 percent of the gasoline and kerosene consumed, and the pipe lines about 12 percent.¹⁴ The remaining amount was transported by unregulated pipe lines, water carriers, and motor trucks.

COST OF PIPE-LINE TRANSPORTATION

The cost of transporting oil by pipe lines varies widely but is considerably less than the cost of railroad transportation. The office of Federal Coordinator of Transportation found that the cost of pipe-line transportation in 1932 for the industry as a whole was 3.2 mills per ton-mile. The comparable figure for the average cost of rail transportation, all commodities considered, was 8.3 mills.¹⁵

A study of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission reports the cost of transporting crude oil by pipe line as 1.98 mills per ton-mile in 1942. The cost of transporting crude oil by rail was found to be 10.62 mills, and the cost by

¹² Pogue, Joseph E., "Economics of Pipe Line Transportation in the Petroleum Industry," reprinted in Hearings on H. Res. 441, *Petroleum Investigation* (1934), pp. 725-727.

¹³ Association of American Railroads, *op. cit.*, p. 93.

¹⁴ *Ibid.*, pp. 9 and 101.

¹⁵ *Op. cit.*, pp. 140 and 143.

tank vessels as 0.63 mills per ton-mile.¹⁶ The cost of transporting refined products of petroleum by pipe line was found to be 4.39 mills per ton-mile, by rail 11.19 mills, and by tank vessels 0.6 mills.¹⁷

The figures shown above indicate that although tank vessels can transport both crude and refined oil much more cheaply than pipe lines, the pipe lines can transport these products much more cheaply than the railroads can.

PIPE-LINE RATES

The low cost of transporting oil by pipe lines is reflected in the charges made by pipe-line companies. These rates are usually lower than the rail rates. An analysis made by the Federal Coordinator's office of a large number of important movements of crude petroleum showed that pipe-line rates were a little less than half the corresponding rail rates in 1932.¹⁸ In 1938 the rates of 50 crude-oil pipe lines averaged about 36 percent of the corresponding rail rates.¹⁹

Gasoline rates by pipe line are usually lower than the corresponding rail rates, but the difference between rail and pipe-line rates on gasoline is less than the difference between rail and pipe-line rates on crude oil. Pipe-line rates on gasoline commonly range from 40 to 70 percent of the corresponding rail rates.²⁰

RELATION OF PIPE-LINE RATES TO COSTS

Notwithstanding the low rates for the transportation of oil by pipe lines, the accusation has often been made that pipe-line rates are higher than the cost of the service justifies. The close affiliation between the pipe lines and the large oil companies is blamed for the situation, since high pipe-line rates work to the advantage of the controlling refineries.

The oil companies which control the pipe lines gain in two ways from the maintenance of high pipe-line rates. The refiners having their own or affiliated pipe lines get their oil transported at cost. Their competitors who have no pipe lines must pay high transportation rates and are therefore at a disadvantage in competing with the refiners who control pipe lines. Oil companies having or controlling pipe lines also

¹⁶ Statement No. 4432, *War-Built Pipe Lines and the Post-war Transportation of Petroleum* (Washington, 1944), p. 81.

¹⁷ *Ibid.*

¹⁸ *Freight Traffic Report*, vol. II, p. 104.

¹⁹ *Reduced Pipe Line Rates and Gathering Charges*, 243 I.C.C. 115, 124 (1940).

²⁰ Wilson, G. Lloyd, "Petroleum Pipe-Line Transportation," in *National Resources Planning Board, Transportation and National Policy* (Washington, Government Printing Office, 1942), p. 467.

gain an advantage over independents through the effect of pipe-line rates on the price of oil at the wells. Independent oil producers must either pay high pipe-line rates to ship oil or sell it at the wells for whatever the large companies with pipe-line facilities will offer. The result may be either to make production unprofitable to independent oil producers or to enable the refiners having pipe lines to purchase crude oil at low figures.

The high rates of return earned by pipe-line companies for many years suggest that pipe-line rates have in fact been kept higher than costs of transportation justified. Table XXIV shows the rate of return on

TABLE XXIV
RATE OF RETURN ON INVESTMENT-LESS-DEPRECIATION OF
PIPE-LINE COMPANIES, 1921-44²¹

Year	Rate of Return (Percent)	Year	Rate of Return (Percent)
1921	10.71	1933	26.72
1922	22.92	1934	22.25
1923	20.52	1935	21.70
1924	21.70	1936	25.37
1925	22.37	1937	28.39
1926	23.93	1938	25.37
1927	25.31	1939	21.70
1928	29.15	1940	21.42
1929	30.73	1941	19.58
1930	27.46	1942	13.43
1931	23.74	1943	13.90
1932	25.70	1944	15.03

depreciated investment earned from 1921 to 1944 by the pipe lines reporting to the Interstate Commerce Commission.

In *Reduced Pipe Line Rates & Charges* the Interstate Commerce Commission found that the average rate of return earned by 35 pipe-line companies in 1935 was 14.01 percent on the Commission's valuation of their properties. The earnings of individual companies ranged from a deficit of 0.6 percent to a return of 46.86 percent.²² In this proceeding the Commission found the rates of 21 pipe-line companies to be unreasonable and excessive.

DEMAND FOR REGULATION

Pipe lines, as we have seen, developed as an adjunct of the oil

²¹ Figures prior to 1938 are from Bureau of Statistics, Interstate Commerce Commission, Statement No. 396, *Statistics of Oil Pipe Lines, 1921-1937* (Washington, 1939), p. 17; later statistics from Statement No. 4526, *Statistics of Oil Pipe Line Companies for 1944*, p. 4.

²² 243 I.C.C. 115, 141-142 (1940).

refining business. The dominance of the Standard Oil Co. in the early days of the oil industry was attained partly because of its control over pipe lines. The Standard was able to transport crude oil much more cheaply by pipe line than it could be transported by rail. Thus this company had a great advantage over refiners that had to rely on rail transportation. When other oil refiners endeavored to construct pipe lines they met all manner of opposition from the Standard. The railroads, seemingly in league with the Standard, often refused to allow pipe lines to cross their rights-of-way. The few pipe lines that were constructed against the wishes of the Standard were eventually brought under its control.²³

It was this situation which led to the demand for regulation of pipe lines. The Hepburn Act of 1906 brought transportation of oil and other commodities, except water and natural or artificial gas, under the control of the Interstate Commerce Commission. The Act declared such pipe lines to be common carriers.

If pipe-line companies were common carriers they could be forced to carry oil for independent producers or refiners at just and reasonable rates, thereby breaking up the advantage possessed by the Standard or other integrated oil companies. Many of the pipe-line companies, however, refused to recognize their common-carrier status and refused to file tariffs with the Interstate Commerce Commission. The companies insisted on purchasing all oil which was offered them for transportation by outsiders. Since the oil was the property of the pipe lines, the companies contended that they were transporting only their own oil and were not transporting oil for the general public. It became necessary for the Commission to institute an investigation and determine whether it had jurisdiction over these pipe lines. The Commission in 1912 decided that these pipe lines were within its jurisdiction.²⁴ It held that the intent of Congress as expressed in the Hepburn Act was to convert interstate pipe lines into common carriers. The Commission left to the courts the question of whether Congress could convert pipe lines into common carriers by legislative fiat. The United States Supreme Court later upheld the action of the Commission in requiring these pipe lines to file their tariffs, although one company transporting oil from its own

²³ See Commissioner of Corporations, *Report on the Petroleum Industry*, Part I (1907), p. xix; also Interstate Commerce Commission, *Railroad Discriminations and Monopolies in Coal and Oil*, 59th Cong., 2d sess., House Doc. No. 606 (1907), pp. 5-6.

²⁴ *In the Matter of Pipe Lines*, 24 I.C.C. 1 (1912).

wells to its own refinery was held not to be a common carrier. The Court conceded that Congress could not make pipe lines common carriers if they were in fact private carriers, but the Court held that the companies in question were in fact common carriers. "They carry everybody's oil to a market, although they compel outsiders to sell it before taking it into their pipes."²⁵ The Court considered the practice of requiring the oil to be sold to the pipe-line company as a mere subterfuge. The Court held that Congress "may require those who are common carriers in substance to become so in form."²⁶ Thus was the Commission's jurisdiction over pipe lines established.

Establishing the status of pipe lines as common carriers, however, and requiring them to file tariffs and to submit annual reports, has not eliminated the evils which the control of pipe lines by oil companies had brought about, although the rise of independent oil companies brought an end to the monopoly of the Standard Oil companies. But the new oil companies which developed likewise controlled pipe lines and possessed some of the advantages over smaller companies which the Standard had so long enjoyed. Two devices in particular have been used by oil companies to retain the advantages which control of pipe lines gave them.

The first of these practices is the maintenance of high minimum-tender requirements which prevent the small oil producer or the small refiner from shipping oil by pipe line. The minimum tender is the minimum amount of oil that will be accepted as a shipment. There are practically no minimum-tender requirements attaching to the use of gathering lines, but trunk lines almost always establish such a minimum. The minimum-tender requirements vary. The most common requirement has been 100,000 barrels, although 25,000 barrels is also common. Sometimes the minimum is as low as 10,000 barrels, and Texas has prescribed a 500-barrel minimum for that State.²⁷ The severity of the minimum-tender requirement is sometimes alleviated by permitting combinations of shipments of different shippers, or by other devices. Small oil producers and refiners, however, still complain of the minimum-tender requirements of pipe-line companies. A complaint before the Interstate Commerce Commission against the Prairie Pipe

²⁵ *The Pipe Line Cases*, 234 U.S. 548, 561 (1914).

²⁶ *Ibid.*

²⁷ House of Representatives, Committee on Interstate and Foreign Commerce, *Report on Pipe Lines* (1933), Part I, pp. lxvi-lxvii.

Line Co. resulted in the reduction of the minimum-tender requirement from 100,000 barrels to 10,000 by order of the Commission in 1922.²⁸ This order was so restricted in its application that 100,000 barrels is still the most common minimum. The Commission, in the *Prairie Pipe Line* case, pointed out that the pipe lines were justified in setting up minimum-tender requirements because the transportation of oil by pipe lines is essentially a bulk business. "The pipe lines can not be successfully operated on a dribble basis, and there is a reasonable minimum below which they should not be required to accept oil for transportation."²⁹ But the Commission found that the 100,000-barrel minimum "reserves the pipe lines to a few large shippers and essentially deprives the lines of the common-carrier status with which they were impressed by the interstate commerce act."³⁰ In the *Reduced Pipe Line Rates* case, previously referred to, the Commission again found minimum tender requirements in excess of 10,000 barrels to be unreasonable, but no order was issued.³¹

The second device by which oil companies owning pipe lines derive an advantage over independent producers and refiners is by maintaining high pipe-line rates. Mention has already been made of this accusation. The belief persists that by maintaining high pipe-line rates the integrated oil companies depress the price of oil at the wells to the disadvantage of independent producers, and at the same time place refiners at a disadvantage who have to rely for oil on pipe lines which the large oil companies control. With this accusation constantly made it is strange that the Interstate Commerce Commission has not been called upon more frequently to determine the reasonableness of rates by pipe lines. In only a few instances have cases come before the Commission involving pipe-line rates. In 1934 the Commission entered upon a general investigation of pipe-line rates for the transportation of crude oil. As a result of this proceeding, known as *Reduced Pipe Line Rates & Charges*, the Commission found the rates of twenty-one pipe-line companies to be excessive,³² as previously noted.³³ That proceeding was subsequently reopened, and at the time of writing no decision has been announced.

²⁸ *Brundied Bros. v. Prairie Pipe Line Co.*, 68 I.C.C. 458 (1922).

²⁹ *Ibid.*, p. 466.

³⁰ *Ibid.*

³¹ 243 I.C.C. 115 (1940).

³² *Ibid.*

³³ p. 655, *supra*.

Only two other cases of importance have been before the Commission which have involved the reasonableness of pipe-line rates.³⁴

DIFFERENCES BETWEEN PIPE-LINE AND RAILROAD REGULATION

There are several respects in which regulation of pipe lines is less extensive than control over railroads. The more important of these are as follows: (1) the so-called "commodities clause" of the Interstate Commerce Act, which prohibits railroads from transporting commodities in interstate commerce which they have produced or in the production of which they are interested, does not apply to pipe lines;³⁵ (2) there is no control over the construction of new lines, or of extensions to existing lines; (3) there is no control over abandonment of pipe lines; and (4) there is no control over the security issues of pipe-line companies.

PIPE LINES AND THE FAIR-RETURN DOCTRINE

In the few cases involving pipe-line rates which have come before it the Commission has applied the fair-return-on-fair-value doctrine. In so doing, however, the Commission has allowed a somewhat higher rate of return than has been used in applying the doctrine to railroads. The Commission has considered 8 percent to be a fair rate of return.³⁶ In justification of this rate of return the Commission said: "The hazards and uncertain future of the common-carrier business of the pipe lines suggest the fairness of a somewhat larger rate of return than it would be reasonable to expect would be applied in industries of a more stable character, where the volume of traffic is more accurately predictable."³⁷

PIPE LINES AND THE ELKINS ACT

In addition to being subject to Part I of the Interstate Commerce Act, with the exceptions noted above, pipe lines are subject to the Elkins Act, which was intended to prevent rebating and other forms of personal discrimination by common carriers.³⁸ In 1941 the Department of Justice filed a complaint in the District Court of the United States for the Dis-

³⁴ *Petroleum Re-l Shippers' Assoc. v. Alton & Southern R. R.*, 243 I.C.C. 589, 655-663 (1941); *Minnelusa Oil Corp. v. Continental Pipe Line Co.*, 258 I.C.C. 41 (1944).

³⁵ If the principle of the commodities clause were applied to pipe lines, it would force oil companies to give up their control of pipe lines.

³⁶ *Reduced Pipe Line Rates & Gathering Charges*, 243 I.C.C. 115, 142 (1940), and *Minnelusa Oil Corp. v. Continental Pipe Line Co.*, 258 I.C.C. 41, 54 (1944).

³⁷ *Ibid.*

³⁸ For discussion of the Elkins Act see pp. 221-222, *supra*.

trict of Columbia alleging that the payment of dividends by pipe-line companies to stockholders who were also shippers by pipe line constituted rebating and was unlawful under the Elkins Act.³⁹ The result of this action was the entrance of a consent decree, agreed to by the pipe lines, whereby the pipe lines agreed not to pay to any shipper-owner dividends which were in excess of such stockholders' share of 7 percent on the value of the pipe line's property as determined by the Interstate Commerce Commission. If the stock of a pipe-line company is all owned by oil companies using the pipe line, dividends are thus limited to 7 percent on the pipe line's valuation. This, of course, is not the same as limiting dividends to 7 percent on the capital stock. Earnings which exceed 7 percent of the pipe line's valuation, and which may not be disbursed to shipper-owners, must be placed in a special surplus account and may be used only for specified purposes, principally for new construction or the retirement of debt which was incurred for construction purposes. Property constructed from this surplus is not to be included in rate-making value.⁴⁰ It should be noted that the consent decree does not reduce actual pipe-line rates, but its effect might possibly be to reduce somewhat the advantages to be derived from maintaining them at a high level.

THE COLE ACT

Many States have granted the power of eminent domain to pipe-line companies in order that they may not be unduly hindered in obtaining rights-of-way for their lines. Some States, of which Georgia was one, never granted pipe lines this power.⁴¹ Efforts to bring about the construction of pipe lines from the Gulf area to the eastern seaboard as part of national defense measures prior to the Pearl Harbor attack led to legislation by Congress to prevent obstruction of these efforts.⁴² The result was the Cole Act, passed in 1941. This Act provided that whenever the President found that the construction of any pipe line for the transportation of petroleum or its products in interstate commerce was necessary for national defense purposes, and so declared by proclamation, such pipe-line company might acquire land or rights-of-way by the exercise of the right of eminent domain. The Act also authorized the Federal Government to construct such pipe lines. The provisions of the

³⁹ Violation of the Interstate Commerce Act was also alleged.

⁴⁰ For more details of the consent decree see 68 *Traffic World* 1660 (1941).

⁴¹ *Botts v. Southeastern Pipeline Co.*, 10 S.E. (2d) 375 (1940); *Harrel v. Southeastern Pipeline Co.*, 10 S.E. (2d) 386 (1940).

⁴² See 77th Cong., 1st sess., House Reports Nos. 602 and 685.

Cole Act were to expire on June 30, 1943, but the Act was twice extended, making its provisions effective up to June 30, 1946.

DIVORCEMENT OF PIPE LINES AND THE OIL INDUSTRY

The advantage which oil companies controlling pipe lines obtain over their competitors is essentially the same as that which railroad-owned coal mines formerly possessed over independent coal operators.⁴³ For this reason there has been strong agitation to apply the "commodities-clause" principle to pipe lines, and thereby force the separation of oil production and refining from the business of transporting oil.

When the bill which became the Hepburn Act was under consideration by Congress in 1906 there was sentiment in favor of making the proposed "commodities clause" apply to pipe lines as well as to railroads, but as finally enacted the clause applied only to railroads. As early as 1907 the Interstate Commerce Commission said that it would "probably be found necessary to disassociate in the case of oil, as in that of other commodities, the function of transportation from that of production and distribution."⁴⁴ In 1917 the Federal Trade Commission recommended the segregation of ownership of pipe lines from other branches of the petroleum industry.⁴⁵ A later report of the Federal Trade Commission suggested the same remedy but in a less positive manner.⁴⁶ Bills to compel the separation of pipe lines from other branches of the industry have been introduced in Congress from time to time.⁴⁷ In 1933 President Roosevelt expressed himself in favor of legislation to divorce oil pipe lines from other branches of the oil industry.⁴⁸ No legislation to this effect has been enacted, but similar proposals are constantly coming up in Congress. The major oil companies naturally oppose such legislation, whereas small oil operators favor it.

Divorcement of the pipe lines from the producing and refining branches of the industry would remove the discrimination against non-

⁴³ See pp. 225-226, *supra*.

⁴⁴ *Railroad Discriminations and Monopolies in Coal & Oil*, 59th Cong., 2d sess., House Doc. No. 606 (1907), p. 14.

⁴⁵ *Report on the Price of Gasoline in 1915* (1917), pp. 161 and 164.

⁴⁶ *Petroleum Industry: Price, Profits, and Competition*, 70th Cong., 1st sess., Sen. Doc. No. 61 (1928), p. 42.

⁴⁷ For a statement in behalf of such legislation see statement of Alfred M. Landon in Hearings before the House Committee on Interstate and Foreign Commerce on H.R. 16695, *Pipe Lines*, 71st Cong., 3d sess., pp. 59-61 (1931). For other statements see House Committee on Interstate and Foreign Commerce, Hearings on H.R. 9676 and H.R. 8572, *Oil and Oil Pipe Lines*, 73d Cong., 2d sess., pp. 219-240 (1934).

⁴⁸ See Hearings, *Oil and Oil Pipe Lines*, p. 229.

integrated refiners and producers. It is possible, however, that the same result could be attained by vigorous exercise of the Interstate Commerce Commission's powers over pipe-line rates. It has been argued that separation of pipe lines from other branches of the oil industry would be impossible for want of purchasers. If the pipe-line business is reasonably profitable, there should be no difficulty on that score. The most plausible argument against separation is that there might be some difficulty in getting pipe lines laid to new oil fields. Under the present system the oil companies exploiting a new field proceed at once to build pipe lines to carry the oil regardless of whether the transportation end of the business promises to be profitable. If pipe lines were to be kept separate from the oil industry, pipe lines would not be built to new fields unless there were prospects of profits in operating them. For this reason there would be hesitancy and delay in constructing pipe lines until a considerable flow of oil was assured. In support of the divorcement of pipe lines from the refining end of the business it may be pointed out that the present system encourages overbuilding of pipe lines with a resulting waste of capital. A large oil company is unwilling to pay the high transportation charges exacted by pipe lines owned by a competitor; hence each company desiring to obtain oil from a producing area is inclined to lay its own pipe line.

Regardless of the pros and cons over the policy of forcing a separation of pipe lines and the other branches of the industry, any semblance of excessive rates and unfair practices which tend to discriminate against independent refiners and producers should be eradicated.⁴⁹

EFFECT OF PIPE LINES ON RAILROAD RATES

It has already been pointed out that the cost of transporting crude oil by pipe line is much lower than the cost of transporting it by rail, and that the railroads transport only a small fraction of the crude oil. In most cases the railroads make no attempt to compete with the pipe lines for crude-oil traffic, although there are instances in which railroad rates on crude oil are depressed by the low pipe-line rates.⁵⁰ For gasoline and other liquid products of petroleum the competition between rail-

⁴⁹ For a positive program of regulation to prevent abuses arising from oil-company control of pipe lines see Dillard, Dudley, 'Big Inch Pipe Lines and the Monopoly Competition in the Petroleum Industry,' 20 *Journal of Law & Public Utility Economics* 109, 115-116 (1944).

⁵⁰ See *Gilliland Oil Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 161 I.C.C. 87, 89 (1930).

roads and pipe lines is active. Railroad rates on these products are influenced very greatly by pipe-line rates.⁵¹

NATURAL GAS PIPE LINES

Pipe lines are also used for the transportation of natural gas. A wooden pipe line for the transportation of natural gas was laid in 1870 from West Bloomfield, N. Y., to Rochester, a distance of 25 miles. The first gas line laid with iron pipe was near Titusville, Pa., in 1872. Long-distance transportation of natural gas began in 1891 with the construction of a line 120 miles long from northern Indiana to Chicago. At the present time there are several gas pipe lines a thousand miles or

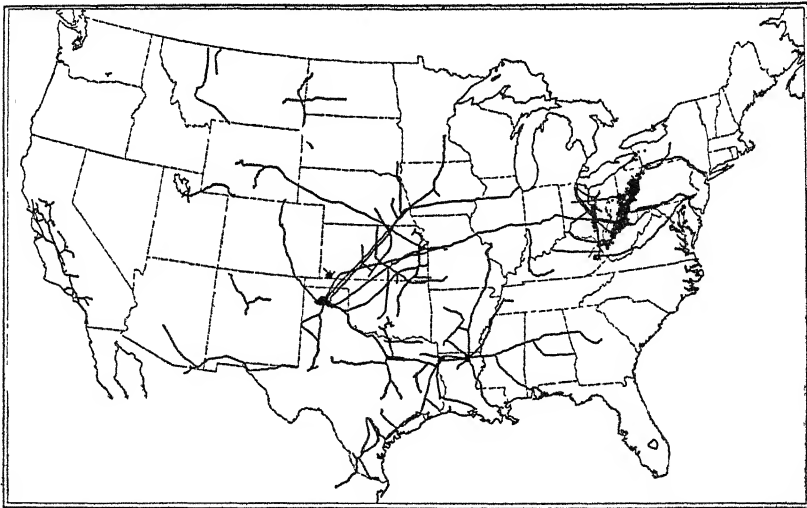


FIG. 48.—Natural Gas Producing Fields and Main Pipe Lines.⁵²

more in length. Rapid construction of natural gas pipe lines took place between 1927 and 1932. About 52,000 miles of gas transmission lines were in existence in 1944.⁵³ The principal gas-producing centers and trunk pipe lines are shown in Figure 48. The gas pipe lines are not

⁵¹ E.g., see *Refined Petroleum Products in the Southwest*, 174 I.C.C. 745 (1931); *Petroleum and Its Products*, 183 I.C.C. 24, 31 (1932); *Stanolind Pipe Line Co. v. Alton R. R. Co.*, 225 I.C.C. 693, 695 (1938). See also Interstate Commerce Commission, *Annual Report*, 1941, p. 27.

⁵² From Federal Trade Commission, *Utility Corporations*, 70th Cong., 1st sess., Senate Doc. 92, Part 84-A.

⁵³ Computed from Federal Power Commission, *Statistics of Natural Gas Companies*, 1944.

common carriers but are owned by producers or distributors and used for the transportation of their own gas.

Gas lines do not enter into competition directly with railroads since natural gas cannot be transported by rail. But indirectly the gas pipe lines compete with railroads because natural gas tends to displace coal for industrial and domestic uses. The National Coal Association estimated that natural gas displaced 22.8 million tons of coal in 1923, 37.6 million tons in 1931, and 35.2 million tons in 1932.⁵⁴ Gas pipe lines have forced railroads to reduce their rates on coal in some instances. The Interstate Commerce Commission has sometimes granted fourth-section relief on coal to enable the railroads to meet the competition of natural gas moving in pipe lines.⁵⁵

Prior to 1938 there was no regulation over the transportation of natural gas in interstate commerce. The Hepburn Act of 1906, which gave the Interstate Commerce Commission control over oil pipe lines, specifically excepted pipe lines used for the transportation of "natural or artificial gas." Lack of control of gas pipe lines made it difficult for State public utility commissions to regulate the sale of gas for domestic use, since they could not control the cost of the gas by pipe-line companies to local distributing companies. This gave rise to a demand for Federal regulation of the interstate transmission of gas by pipe line. This control was established in 1938 by the Natural Gas Act, which placed control over gas pipe lines under the Federal Power Commission.⁵⁶ The Act applies not only to the transportation of natural gas but to its sale in interstate commerce for resale to the public. An amendment to the Act in 1942 requires certificates of public convenience and necessity before new natural gas pipe lines may be constructed.⁵⁷ The Natural Gas Act may be considered as supplementing State public utility regulation. It may more appropriately be considered in detail in a treatise on public utility regulation than in a work on transportation.

SELECTED REFERENCES

The best discussions of pipe lines generally and of the problems which they raise are W. A. Prewitt, "The Operation and Regulation of Crude Oil and Gasoline Pipe Lines," 56 *Quarterly Journal of Economics* 177 (1942), and

⁵⁴ Federal Coordinator of Transportation, *Regulation of Transportation Agencies* (1934), p. 56.

⁵⁵ *Coal from Illinois, Indiana, and Kentucky*, 215 I.C.C. 593 (1936), and cases there cited.

⁵⁶ 52 Stat. 821.

⁵⁷ 56 Stat. 83.

William Beard, *Regulation of Pipe Lines as Common Carriers* (New York, Columbia Univ. Press, 1941). For a description of pipe-line transportation see G. Lloyd Wilson, "Petroleum Pipe-Line Transportation," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 456-469. Detailed factual information about pipe lines may be found in Association of American Railroads, Railroad Committee for the Study of Transportation, *Report by Subcommittee on Pipe Line Transport* (1944); also Interstate Commerce Commission, Bureau of Transport Economics and Statistics, Statement No. 4432, *War-Built Pipe Lines and the Post-war Transportation of Petroleum* (Washington, mimeographed, 1944). Technical features of pipe-line transportation of gasoline are treated in C. P. Bowie, *Transportation of Gasoline by Pipe Line*, U.S. Department of Commerce, Bureau of Mines, Technical Paper 517 (1932).

For discussion of the problems in the oil industry created by ownership of pipe lines by oil companies see Commissioner of Corporations, *Report on the Transportation of Petroleum* (1906), and *Report on the Petroleum Industry*, Part 1 (1907), and also two reports by the Federal Trade Commission: *Report on Pipe-Line Transportation of Petroleum* (1916), and *Petroleum Industry—Prices, Profits and Competition*, 70th Cong., 1st sess., Senate Doc. No. 61 (1927), and Interstate Commerce Commission, *Railroad Discriminations and Monopolies in Coal and Oil*, 59th Cong., 2d sess., House Doc. No. 606 (1907). This problem is also discussed in two monographs of the Temporary National Economic Committee, namely, Monograph No. 39, *Control of the Petroleum Industry by Major Oil Companies* (Washington, Government Printing Office, 1941), and Monograph No. 39-A, *Review and Criticism on Behalf of Standard Oil Company (New Jersey) and Sun Oil Co. of Monograph No. 39 with Rejoinder by Monograph Author* (Washington, Government Printing Office, 1941). For an excellent discussion of possible methods of forcing the separation of pipe lines and other branches of the oil industry see Forrest R. Black, "Oil Pipe Line Divorcement by Litigation and Legislation," 25 *Cornell Law Quarterly* 510 (1940).

Detailed information about natural gas pipe lines is obtainable from Federal Trade Commission, *Utility Corporations*, 70th Cong., 1st sess., Senate Doc. No. 92, Part 84-A (1936). See also Temporary National Economic Committee, Monograph No. 36, *Reports of the Federal Trade Commission on Natural Gas and Natural Gas Pipe Lines in U.S.A.* (Washington, Government Printing Office, 1940).

CHAPTER XXVIII

HIGHWAY TRANSPORTATION

THE use of highways for long-distance transportation was restricted for many years by the high cost of transporting goods by horse and wagon. Lack of other transportation facilities sometimes made it necessary to haul commodities long distances in this manner, as in the turn-pike era, but the number of commodities that could stand the high cost was limited. After the building of railroads, highways became even less important for long-distance hauls. For nearly a century transportation on highways was largely local in nature.

The invention of the automobile late in the nineteenth century was destined to alter profoundly the transportation system that had devel-

TABLE XXV
MOTOR-VEHICLE REGISTRATIONS IN THE UNITED STATES¹

Year	Number of Registrations	Year	Number of Registrations
1895.....	4	1925.....	19,937,274
1900.....	8,000	1930.....	26,545,281
1905.....	78,800	1935.....	26,227,276
1910.....	468,500	1940.....	32,025,365
1915.....	2,445,666	1945.....	31,035,420
1920	9,231,941		

oped up to that time. Motor vehicles created a demand for greatly improved roads, and the improved roads, in turn, greatly increased the possibilities of the new means of transportation. In the space of a few years highways again became an important factor in the movement of persons and property over comparatively long distances. Motor trucks soon threatened the practical monopoly of intercity freight transportation that railroads had enjoyed. They have forced many changes in railroad freight rates and services, and we are still in the throes of the readjustments which they have made necessary.

The number of motor-vehicle registrations in the United States at five-year intervals from 1895 to 1945 is shown in Table XXV. The number increased steadily until 1931, but the depression of the thirties reduced the total for a number of years. A new high in registrations was

¹ Automobile Manufacturers Association, *Automobile Facts & Figures*. Figure for 1945 from Public Roads Administration.

reached in 1941, however, when the total number reached 34,383,167,² after which the war again reduced the total.

The number of motor-truck registrations in the United States in various years is shown in Table XXVI.

TABLE XXVI
MOTOR-TRUCK REGISTRATIONS IN THE UNITED STATES³

Year	Number of Registrations	Year	Number of Registrations
1895.....	.....	1925.....	2,440,854
1900.....	.....	1930.....	3,486,019
1905.....	1,400	1935.....	3,664,429
1910.....	10,000	1940.....	4,590,386
1915.....	136,000	1944.....	4,528,100
1920.....	1,006,080		

Figures are not available for the number of busses registered over the same period of years shown in Tables XXV and XXVI, but the number of busses owned by intercity operators in 1943 was 28,504.⁴

HIGHWAYS AND HIGHWAY POLICY

Contemporaneously with the rise of motor-vehicle use came an intensified demand for improved highways. Prior to 1891 the building and maintenance of highways was largely a function of local units of government—counties, townships, and municipalities. Gradually, however, and even before automobiles appeared, there arose a demand for better roads than the local units of government provided. In 1891 the State of New Jersey created a system of State-aid highways for that State. One-third of the cost of improvement of State-aid roads was to be defrayed by the State. By 1915, State-aid laws had been enacted in 45 States, and 40 States had created State highway departments.

In 1916 the Federal Aid Road Act was passed,⁵ granting Federal funds to the States for highway improvement. Federal aid for any State was conditioned upon the existence of a State highway department strong enough to provide effective control and supervision of highway construction. As a result of this Act every State had a highway department by 1917.

The Federal Aid Road Act, in addition to stimulating effective centralization of control over main highways within the several States,

² *Ibid.*, 26th ed., p. 50.

³ *Ibid.*

⁴ National Association of Motor Bus Operators, *Bus Facts, 1943-1944*, p. 4.

⁵ 39 Stat. 355.

made the Federal Government an active force in highway development. Thereafter, the Federal Government was to aid in the financing of highways and was also to have a part in establishing standards of construction for Federal-aid roads.

The Federal Aid Road Act was supplemented by the Federal Highway Act of 1921,⁶ which has provided the basis for the present system of Federal participation in road building. Under the Federal Highway Act a system of primary highways was selected in each State which was designated as the Federal-aid highway system. This system was originally limited to not more than 7 percent of the total rural road mileage in each State. One-half of the cost of improving these highways was to be borne by the Federal Government, but the States were to agree to maintain them. During the depression of the thirties additional Federal funds were made available for highway improvement without the limitations of the Federal Highway Act of 1921. The 50-50 matching basis of financing was restored in 1936, and has continued to be an important feature of our highway policy. There has been some modification of the requirement which limited Federal-aid mileage strictly to 7 percent of the total rural mileage.

In 1938 provision was made for Federal aid to secondary and feeder roads on a permanent basis, thus departing from the original policy of confining Federal aid to primary highways.⁷ The secondary system has been confined thus far to 10 percent of the total rural mileage within a State.⁸ The Federal-Aid Highway Act of 1944⁹ authorized Federal expenditures of \$500,000,000 per year for three years on highways, and provided for the designation of a "National System of Interstate Highways" not exceeding 40,000 miles "so located as to connect by routes, as direct as practicable, the principal metropolitan areas, cities, and industrial centers, to serve the national defense, and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico." Undoubtedly most of this 40,000 miles is already a part of the Federal-aid system, but any mileage that is not now included is to be added to the Federal-aid system regardless of any mileage limitations.

Until 1939 administration of the various Federal highway acts was

⁶ 42 Stat. 212.

⁷ 52 Stat. 633.

⁸ Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st Sess., House Doc. No. 159 (1944), p. 201.

⁹ Public Law 521-78th Cong.

in the hands of the Bureau of Public Roads in the Department of Agriculture. In 1939 the Bureau became the Public Roads Administration and was transferred to the Federal Works Agency.

THE HIGHWAY SYSTEM

At the end of 1941 the highway system of the United States consisted of approximately 3,309,000 miles of road, classified as follows:¹⁰

	Miles
Primary State highways	332,000
Secondary and local roads	2,597,000
National park and national forest roads, etc.....	76,000
Town and city streets	304,000
Total	3,309,000

The Federal-aid highway system, constituting about 235,833 miles in 1941, is included within the primary State system. About 45 percent of the primary State highways had a high-type surface in 1941,¹¹ while about 20 percent of the secondary and local roads and 35 percent of streets were thus surfaced.¹² The importance of the primary State highways is seen from the fact that although they constituted but 10 percent of the total highways they carried 42 percent of the traffic in terms of total vehicle-miles.¹³ The secondary and local roads carried 14 percent of the total traffic; and city streets carried 44 percent.¹⁴ Some idea of the nature of the use made of the State highways is indicated by a traffic count made at 657 locations, mostly on State highways, in 1941. The count showed that passenger cars constituted 76 percent of the total traffic; trucks comprised 23 percent; and busses about 1 percent.¹⁵

ANNUAL HIGHWAY EXPENDITURES

Annual highway expenditures in recent years have exceeded \$2,000,000,000 per year. In 1940 construction expenditures on all highways, roads and streets amounted to \$1,257,901,000; maintenance expenditures totaled \$938,973,000; and interest on highway debt amounted to

¹⁰ Figures from Public Roads Administration.

¹¹ High-type surface includes bituminous penetration, bituminous concrete, sheet asphalt, portland cement concrete, and brick and block pavements.

¹² Board of Investigation and Research, *op. cit.*, p. 192.

¹³ *Ibid.*, p. 262.

¹⁴ *Ibid.*

¹⁵ Peabody, L. E., "Traffic Growth and Composition, 1937-1941," 23 *Public Roads* 155 (1943).

\$190,159,000.¹⁶ Of the total expended, the Federal Government spent \$469,785,000, while State and local Governments spent \$1,917,248,000.¹⁷

HIGHWAY FINANCING

When highways were used almost exclusively for local hauls they were quite naturally financed from the proceeds of local taxes. With the development of motor vehicles and the demand for improved roads the tendency to levy special taxes upon highway users developed. The most important of these taxes are gasoline taxes and motor-vehicle registration fees.

The gasoline tax has had a remarkable growth. In 1919 only four States levied such a tax. The rate was 1 cent per gallon in three of the States, and 2 cents in the fourth. By 1929 every State in the Union had a gasoline tax and the 1-cent rate had disappeared.¹⁸ In 1944 the

TABLE XXVII
STATE GASOLINE TAX RECEIPTS²⁰

Year	Receipts	Year	Receipts
1920.....	\$ 1,364,000	1941.....	\$950,956,000
1925.....	148,358,000	1942.....	839,457,000
1930.....	493,865,000	1943.....	654,855,000
1935.....	616,852,000	1944 est.....	740,000,000
1940.....	864,472,000		

following rates were in effect: 2 cents in Missouri, 3 cents in nine States and in the District of Columbia, 4 cents in eighteen States, 5 cents in nine, 6 cents in five, and 7 cents in three, with one State each having rates of 5.1 cents, 5.5 cents, and 6.5 cents.¹⁹ The growth of revenues from this source can be seen from Table XXVII.

Motor-vehicle registration fees vary widely from State to State, particularly upon motor trucks. According to calculations made by the American Trucking Association, Inc., the registration fees in 1946 on a tractor and semi-trailer having a gross weight of 40,000 pounds and conforming to certain other specifications and operating as a private truck would have varied from \$47.50 in Montana to \$498 in Mississippi.²¹ If the unit had been operated as a regular-route common carrier,

¹⁶ Board of Investigation and Research, *op. cit.*, p. 537.

¹⁷ *Ibid.*

¹⁸ Bureau of Railway Economics, *An Economic Survey of Motor Vehicle Transportation in the United States*, Special Series No. 60 (Washington, 1930), p. 61.

¹⁹ Information from Public Roads Administration.

²⁰ Automobile Manufacturers Association, *op. cit.*

²¹ From circular published by American Trucking Associations, Inc.

the registration fee would still have been \$47.50 in Montana, but it would have been \$812 in Mississippi.²²

Total receipts from State motor-vehicle registration fees for various years are shown in Table XXVIII.

TABLE XXVIII
RECEIPTS FROM STATE MOTOR-VEHICLE REGISTRATION FEES²³

Year	Receipts	Year	Receipts
1920.....	\$102,546,000	1941.	\$511,242,000
1925.. . . .	260,620,000	1942.. . . .	470,864,000
1930.. . . .	355,705,000	1943.. . . .	449,724,000
1935.. . . .	335,375,000	1944 est .. .	445,000,000
1940.....	457,091,000		

In addition to registration fees, many States impose additional fees and taxes on trucks, particularly on common-carrier trucks. Some of these taxes are on gross receipts, others on miles operated, and others on ton-miles. Table XXIX shows the registration and license fees and other special taxes, other than gasoline taxes, that would have been

TABLE XXIX
REGISTRATION FEES, LICENSES, AND OTHER SPECIAL TAXES, EXCLUSIVE OF GASOLINE TAX, ON COMMON-CARRIER TRACTOR AND SEMI-TRAILER OF 40,000 POUNDS GROSS WEIGHT IN VARIOUS STATES, 1946²⁴

State	Annual Tax
Alabama	\$ 451.00
California.. . . .	691.94
Illinois	250.00
Massachusetts.	65.00
Mississippi	837.00
New York	122.40
North Carolina	960.00
Ohio	288.00
Oregon.	1,097.70
Pennsylvania.	274.46
Tennessee	897.50
West Virginia	1,213.00

levied in various States in 1946 on a tractor and semi-trailer having a gross weight of 40,000 pounds and conforming to other specifications and operated by a regular-route common carrier.

The proceeds of registration fees, gasoline taxes, and other special taxes on motor vehicles are largely used for highway purposes, although

²² *Ibid.*

²³ National Automobile Chamber of Commerce, *op. cit.*

²⁴ From circular published by American Trucking Associations, Inc. To compute annual mileage taxes, gross receipts taxes, and ton-mile taxes it was assumed that the vehicle traveled 50,000 miles, performing 250,000 ton-miles of service, and that it produced gross receipts of \$16,000.

there has been a tendency to divert such funds to other uses. These sources of revenue, however, have provided large sums for the building and maintaining of highways. During the period of most rapid improvement of highways for motor-vehicle traffic the demand for improved roads outstripped current revenues available for the purpose. As a result, many States and local units of government resorted to borrowing to build highways. The peak of borrowing by State highway departments occurred in 1930, when \$222,000,000 was borrowed.²⁵ The trend in highway borrowing has been downward, however. In 1943 only two States resorted to borrowing for highway purposes.²⁶ The total State highway debt in 1943 was \$1,618,049,000.²⁷ The latter sum, however, does not include all highway debt, since some debt for highway pur-

TABLE XXX
SOURCES OF STATE FUNDS FOR HIGHWAY PURPOSES, 1943²⁸

Source	Amount	Percent of Total
State motor-vehicle taxes	\$1,117,377,000	82.7
Tolls	14,644,000	1.1
Other State taxes and funds	23,924,000	1.7
Federal funds	152,189,000	11.3
Bond and note issues	28,257,000	2.1
Miscellaneous	15,213,000	1.1
Total	\$1,351,604,000	100.0

poses has been incurred by local units of government, and there is also some indebtedness incurred for special projects and secured by receipts from tolls. The Golden Gate Bridge and the Pennsylvania Turnpike are examples.

The relative importance of the various sources of revenues for highway purposes is indicated in Table XXX.

FINANCING HIGHWAYS ON A USER BASIS

The tendency to levy special motor-vehicle taxes for highway purposes is a natural result of the changing use made of highways. As long as highways were used almost entirely for local transportation it was natural that they should be financed by local taxes. With the development of motor vehicles, highways came to be used to a considerable

²⁵ Owen, Wilfred, "The Provision of Highway Facilities," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), p. 395.

²⁶ Public Roads Administration, Federal Works Agency, *State Obligations for Roads and Bridges*, 1943.

²⁷ *Ibid.*

²⁸ Automobile Manufacturers Association, *op. cit.*, p. 35.

degree for intercity long-distance transportation. The facilities required for this traffic were quite different from those that seemed adequate for local use, and it seemed entirely equitable to finance the building of such highways largely from special taxes imposed on the users. When highways are financed largely from the proceeds of special motor-vehicle taxes, the highways are said to be on a user basis. The phrase may be a misnomer, however, since to finance some highways from the proceeds of gasoline taxes, registration fees, and the like is to tax those who make little use of them, while to finance certain local roads from the proceeds of general property taxes is to tax those who make the principal use of them.

The tendency to shift the burden of financing the more important trunk highways from local taxpayers to operators of motor vehicles, however, is desirable for several reasons. In the first place, it has made possible the improvement of important highways to a degree which would not have been possible if the burden had to be borne by the local taxpayers. In the second place, user taxes are equitable in that they place the costs of providing the improved highways on those who make the principal use of them. In the third place, the imposition of user taxes puts highway transportation upon a sounder economic basis than when part of the cost of highway transport is borne by taxpayers rather than by the users of the highway. In other words, transportation is discouraged which is not worth its cost. Lastly, removing, or at least lessening, the element of subsidy to highway transportation that is inherent in the assumption of part of the costs by the taxpayers tends to put motor carriers and railroads on a sounder competitive basis in that rates and charges will more nearly reflect the relative costs of transportation by the two agencies.

§

EXCEPTIONS TO THE USER BASIS

In commending the tendency to finance highway expenditures by special levies upon highway users we have in mind the financing of highways that are used primarily for intercity transportation, often for long distances. It has been customary, in recent years, to classify highways into two groups: general-use highways, and land-use highways. In the former group come practically all State highways, and some of the county and local highways. They may properly be financed by those who use them. The land-use highways serve local needs. They connect farms and the smaller rural communities with the larger towns. They

are used chiefly by the farmer and other rural dwellers. They are used very little by the tourist, the long-distance traveller, or by commercial vehicles with the exception of those which haul farm products. These roads may properly be financed as they long have been, that is, largely from the proceeds of local taxation. It is unfair to saddle the support of these roads on the general motor-vehicle operators because they do not use these roads at all, or do so only to a limited extent.

Railroad spokesmen are inclined to contest the soundness of distinguishing between general-use highways and land-use highways.²⁹ They favor placing the cost of nearly all highways on the motor-vehicle operators.³⁰ We are inclined to the view expressed above that not all of the cost of the secondary and land-use highways should be placed on motor-vehicle operators, but should be placed in considerable measure upon the local taxpayer.

The Chamber of Commerce of the United States has declared that general-use highways, used primarily as arteries for motor traffic, should be financed largely from special motor-vehicle taxes, but that the cost of local roads and streets should be paid largely from general revenues and property assessments.³¹ Such, also, were the carefully considered views of the staff of the Federal Coordinator of Transportation, which was engaged in the study of public aids to transportation,³² and of the staff of the Board of Investigation and Research, which was engaged in a similar study,³³ and also by some other students of the problem.³⁴

IMPORTANCE OF HIGHWAY TRANSPORTATION

An estimate made by the Bureau of Statistics of the Interstate Commerce Commission placed the total operating expenses, depreciation, and taxes of all highway operations, private and for-hire, in 1936 at \$15,702,000,000.³⁵ This was about four times the operating expenses, depreciation, and taxes of all rail transportation agencies, and was over

²⁹ See Duncan, C. S., "Who Pays for the Highways," 93 *Railway Age* 210 (1932).

³⁰ Association of American Railroads, *A Review of 'Public Aids to Domestic Transportation'* (mimeographed, 1946), pp. 52-54.

³¹ *Highway Policies* (Washington, 1944), pp. 7-8.

³² *Public Aids to Transportation*, vol. IV (Washington, Government Printing Office, 1940), p. 45.

³³ Board of Investigation and Research, *op. cit.*, p. 283. The problem is discussed at length in the Federal Coordinator's report, pp. 12-45, and in the B.I.R. report, pp. 250-283.

³⁴ Dearing, Chas. L., *American Highway Policy* (Washington, The Brookings Institution, 1941), pp. 158-163, 209-212.

³⁵ *Immediate Relief for Railroads*, 75th Cong., 3d sess., House Doc. No. 583 (1938), p. 9.

75 percent of the expenses of all agencies of transportation. These figures covered the operation of all vehicles, including private automobiles. It is important to realize, also, that these highway operations included the purely intracity and local farm-to-market movement of persons and property—the field formerly occupied by horse-drawn vehicles. Motor-vehicle transportation facilities have greatly expanded the area of local farm-to-market operations which were largely confined to a radius of 5 to 10 miles in the days of horse-drawn vehicles.

So far as intercity transportation is concerned, highway transportation occupies a much less important place in the transportation system than the above figures would indicate. The Interstate Commerce Commission estimated that in 1944 motor trucks transported 49,308,000,000 ton-miles, or 4.62 percent, of the total intercity movement of freight.³⁶ However, they were responsible for 63.82 percent of the intercity passenger-miles, but most of this represented travel in private automobiles rather than in common-carrier facilities.³⁷ Intercity busses transported only about 10.26 percent of the total intercity passenger traffic in terms of passenger-miles.³⁸

Motor-truck transportation has become an important factor in the transportation of many agricultural products and livestock. In 1941 motor trucks hauled 44 percent of the fresh fruits and vegetables received at major markets.³⁹ In the same year motor trucks hauled 40 percent of the butter, 21 percent of the cheese, 54 percent of the eggs, 45 percent of the dressed poultry, and 59 percent of the livestock, at important markets.⁴⁰ Figures for 1942 and 1943 show a slight reduction in these proportions owing to conditions brought about by the war.

CHARACTERISTICS OF MOTOR-VEHICLE TRANSPORTATION

A proper understanding of the transportation problem of today requires knowledge of certain characteristics of motor-vehicle transportation as it has developed up to the present time.

CLASSIFICATION OF CARRIERS

Three types of carriers of property operate motor trucks over the highways, namely, (1) common carriers, (2) contract carriers, and (3) private carriers. The first two groups are carriers for hire. The

³⁶ *Annual Report*, 1945, p. 13.

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ Bureau of Agricultural Economics, U.S. Department of Agriculture, *The Marketing and Transportation Situation*, January, 1945, p. 10.

⁴⁰ *Ibid.*

third class consists of individuals or business establishments transporting their own traffic. In this class are trucks owned and operated by farmers, manufacturers, and commercial establishments. Common carriers are carriers who hold themselves out to serve the public generally, although they may and commonly do restrict their business to the transportation of particular kinds of traffic, such as household goods, or liquid petroleum products, or livestock. Others, of course, are carriers of general freight. Common carriers may be further subdivided into regular-route carriers and irregular-route or "anywhere-for-hire carriers."

Contract carriers do not purport to transport for the public generally but carry for a very limited clientele under special contract which usually covers shipments over a period of time.

Private trucking is more important quantitatively than for-hire trucking. It has been estimated that in 1940 approximately 85 percent of the motor-truck registrations were private trucks and 15 percent for-hire.⁴¹ A for-hire truck, however, is probably operated more miles in a year on the average than is the average private truck. Highway planning surveys indicate that about 76 percent of the vehicle-miles of trucks on rural roads were by private trucks, and 24 percent were by for-hire vehicles.⁴² Private trucks accounted for about 54 percent of the ton-miles of freight service performed in 1940, and for-hire vehicles accounted for 46 percent.⁴³

Evidence is somewhat conflicting concerning the relative importance of common and contract carriers. Highway surveys made a number of years ago indicated that contract carriage was quantitatively more important than common-carrier trucking. In eleven western States in 1930, 8.7 percent of the trucks stopped on the highways were contract-carrier trucks, and 5.5 percent were common carriers.⁴⁴ A New Jersey survey showed that in 1922 and 1923 contract carriers owned 17.7 percent of the trucks, and common carriers 2.2 percent.⁴⁵ A Connecticut survey showed 16.9 percent of the trucks as contract haulers, and 7.6 percent as common carriers.⁴⁶ An Arkansas survey made in 1934 and

⁴¹ Interstate Commerce Commission, *Federal Regulation of the Sizes and Weight of Motor Vehicles*, 77th Cong., 1st sess., House Doc. No. 354 (1941), p. 91.

⁴² *Ibid.*, p. 92.

⁴³ *Ibid.*, also p. 446.

⁴⁴ *Report of a Survey of Traffic on the Federal-Aid Highway Systems of Eleven Western States*, 1930 (Washington, Government Printing Office, 1932), p. 29.

⁴⁵ Peabody, L. E., "Some Characteristics of Traffic on New Jersey Highways," 16 *Public Roads* 17, 28 (1935).

⁴⁶ Peabody, L. E., "Digest of Report on Connecticut Traffic Survey," 16 *Public Roads* 225, 234 (1936).

1935 showed 10.1 percent contract carriers, and 4.7 percent common carriers.⁴⁷ A summary of data collected in State-wide highway planning surveys in thirty-four States shows that common-carrier trucks accounted for about 13 percent of the total included in the count, and contract carriers accounted for 16 percent.⁴⁸

Of the carriers of property subject to the Interstate Commerce Commission's jurisdiction, common carriers greatly outnumber the contract carriers. In 1939, 83 percent were common carriers, and 17 percent were contract carriers.⁴⁹ The common carriers accounted for 76 percent of the tons transported, and the contract carriers for 24 percent.⁵⁰ A later analysis indicates that in 1945 contract carriers were only 15 percent of the total number subject to the Commission's jurisdiction, and 85 percent were common carriers.⁵¹

There is a disposition in some quarters to regard the use of highways by the owner-operated vehicle as its normal use and to consider the carrier for hire as somewhat of an intruder. It is not unusual to discriminate against the for-hire vehicles on the theory that they are using the highways for private profit or as a place of business. It is submitted, however, that a large portion of the traffic on highways is for purposes of gain, even that which is carried in owner-operated trucks. Furthermore, whether a person moves his goods over the highway in his own truck, or whether he employs a carrier for hire, is simply a matter of division of labor. In the latter case it is the shipper who is the real user of the highway, and he should not be discriminated against in favor of the person carrying goods in his own truck. It should not be implied that higher taxes on for-hire trucks than are levied on owner-operated trucks of the same size necessarily constitute a discrimination against the former. This is because the for-hire trucks may make greater use of the highways. But such taxes are discriminatory, if not proportionate, to the greater use of the highways by the for-hire trucks.⁵²

⁴⁷ Arkansas State Highway Commission, *Arkansas Traffic Survey, 1934-1935* (Little Rock, 1936), p. 31.

⁴⁸ Association of American Railroads, Regional Research Department, Eastern-Southern Region, *State Highway Planning Surveys* (New York, mimeographed, 1940), Table No. 2.

⁴⁹ Morgan, C. S., Breitenbach, E. V., and Riley, J. O., "The Motor Transport Industry," in National Resources Planning Board, *op. cit.*, p. 405.

⁵⁰ *Ibid.*

⁵¹ Sorrell, L. C., Statement No. 2 in the Non-Scheduled Air Carrier Investigation of the Civil Aeronautics Board (mimeographed, 1945), p. 9.

⁵² For a criticism of the practice of imposing higher levies on for-hire trucks, see State of Washington, *Report of the Highway Cost Commission to the State Legislature on the Cost and Use of Highways, etc.* (Olympia, State Printing Plant, 1935), p. 66.

LENGTH OF HAULS

There is much evidence to indicate that short hauls predominate in motor-truck transportation. Only a few examples of data to substantiate this fact are necessary. Highway survey data indicate that the average one-way trip of motor trucks which travel outside of urban areas is about 17 miles.⁵³ This average covers all property-carrying vehicles and includes farm-to-market hauls as well as intercity hauls.

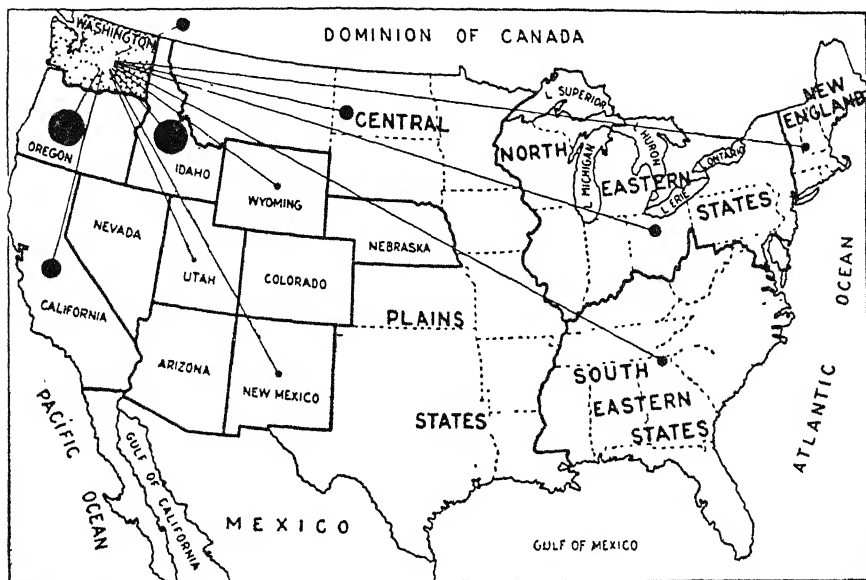


FIG. 49.—Out-of-State Trucks in Washington, by State of Registration (1922-1930).⁵⁴

An investigation made by the California Railroad Commission in 1932 showed that 61 percent of the tonnage handled by trucks in the State moved 50 miles or less, 21 percent from 50 to 100 miles, 12 percent from 100 to 200 miles, 4 percent from 200 to 300 miles, and only 1.5 percent more than 300 miles.⁵⁵ A compilation of the average haul of traffic moving into Kansas during the month of May, 1934, showed an average haul of 175 miles by the 27,224 loaded trucks which entered

⁵³ Interstate Commerce Commission, *Federal Regulation of the Sizes and Weight of Motor Vehicles*, p. 95.

⁵⁴ Bureau of Public Roads, *op. cit.*, p. 27. For similar maps for the other western States see pp. 27 and 28.

⁵⁵ *Investigation Into the Various Transportation Systems* (1932), p. 25.

the State for points in Kansas.⁵⁶ The Interstate Commerce Commission has noted that on cabbages and tomatoes shipped from origins in Mississippi 65 percent of the shipments moved by motor truck on hauls of less than 700 miles, and 35 percent moved by rail. For shipments beyond 700 miles only a few shipments moved by truck.⁵⁷ In another case the Commission pointed out that for distances up to 200 miles motor carriers in 1938 handled most of the shipments of new automobiles; and for distances up to 600 miles they carried a large portion

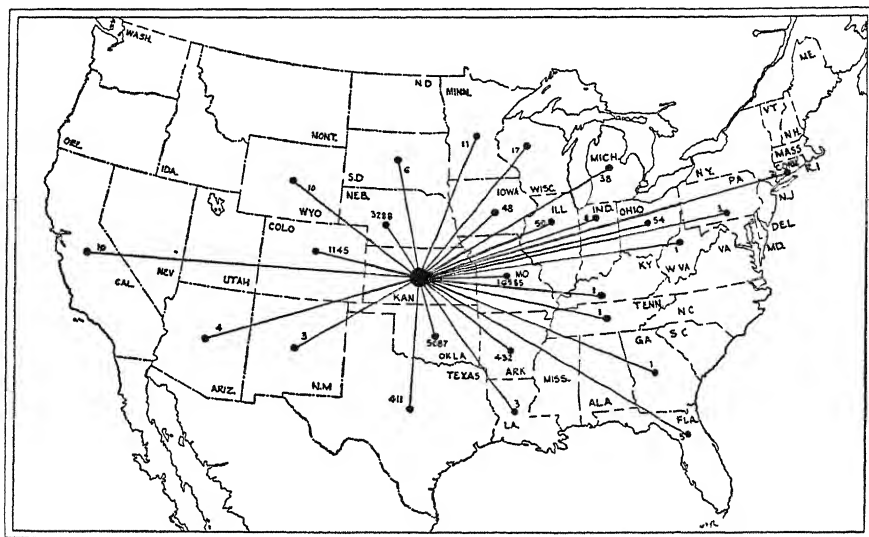


FIG. 50.—Motor-Truck Traffic into Kansas by State of Origin for Month of May, 1934.
(Numerals Indicate Number of Loaded Trucks.)

of it, but for distances beyond 600 miles the movement was principally by rail.⁵⁸

Emphasis on the short-haul characteristic of motor-truck traffic should not obscure the fact that there is some trucking for very long distances. Fig. 49 classifies the out-of-State trucks in the State of Washington observed in the Western Traffic Survey. It will be noticed that there were some trucks from New England, southeastern, and north-eastern States. The size of the dots in the States adjacent to Washington shows, however, that short-distance traffic was more important.

⁵⁶ Computed from data collected in the administration of the Kansas Port-of-Entry Law.

⁵⁷ *Mississippi Vegetable Shippers Bureau v. Aberdeen & Rockfish R. R. Co.*, 248 I.C.C. 365, 366 (1941).

⁵⁸ *New Automobiles in Interstate Commerce*, 259 I.C.C. 475, 489 (1945).

Fig. 50 shows the motor-truck traffic into Kansas in the month of May, 1934. The number of trucks entering from each State is shown. The predominance of short hauls is shown by the large number of trucks from adjacent States, but the existence of some trucking from distant States is also shown.

Commodities vary greatly in the distances over which they can profitably be shipped by truck. Commodities that take high rates by rail move longer distances by truck than commodities given lower rail rates. Perishable products, as we have noted, commonly move long distances by truck. This is partly because of comparatively high rail rates and partly because of the fact that refrigeration is sometimes unnecessary for truck shipments, but would be necessary if the commodity were shipped by rail. The time element is often an important factor in favor of truck shipments of perishables, and there is less handling and less jolting if the truck can travel over the better roads. Even fruits and vegetables differ in the extent to which they are hauled long distances by truck. Berries, green peas, peaches, and grapes are hauled several hundred miles, while others like onions, potatoes, and cabbages are usually carried shorter distances.⁵⁹

TRUCKING AS A SMALL-SCALE INDUSTRY

Commercial trucking seems to be a small-scale industry, particularly when compared with railroad transportation. Although there are a few large common carriers operating a large number of trucks, the industry is characterized by a large number of operators with few trucks. A Bureau of Census study of motor trucking for hire in 1935 showed that of 61,216 concerns from which information was obtained 31.9 percent received less than \$1,000 per year in gross revenues.⁶⁰ Eighty-one percent of all concerns received less than \$5,000 a year in revenues. Only 1.5 percent had revenues of \$100,000 or more. There were only ninety-six concerns, or about 0.2 percent, which had revenues of \$500,000 a year or more. Many thousands of small trucking concerns are not engaged in interstate commerce, carry only agricultural commodities, or for other reasons do not come under the jurisdiction of

⁵⁹ Edwards, Price, and Park, J. W., *The Marketing and Distribution of Fruits and Vegetables by Motor Truck*, U.S. Department of Agriculture Technical Bulletin No. 242 (1931), p. 1.

⁶⁰ U.S. Department of Commerce, Bureau of the Census, *Motor Trucking for Hire, U.S. Summary* (1937), p. 4.

the Interstate Commerce Commission. The proportion of very small motor carriers among the carriers subject to the Commission's jurisdiction would therefore be less than for the industry as a whole, but even in this group the proportion of small carriers is very large. The Commission classifies motor carriers into three size groups: Classes I, II, and III. Class-I motor carriers of property are those having annual operating revenues in excess of \$100,000; Class-II carriers have operating revenues from \$25,000 to \$100,000; and Class-III carriers have revenues of less than \$25,000. In 1941 Class-II and Class-III carriers constituted 94 percent of the carriers of property subject to the Commission's jurisdiction. Class-I carriers constituted but 6 percent of the number, but accounted for nearly 60 percent of the revenues.⁶¹ The large number of very small operators is also evidenced by the fact that 44 percent of the carriers reporting to the Commission had only one or two power units (truck or tractor).⁶²

Although the motor-trucking industry is characterized by many small operators, there are a number of sizable concerns. In 1944 there were one hundred and twenty-four concerns having operating revenues of over \$1,000,000 which were engaged in handling general freight, mostly in intercity service.⁶³ There were two such carriers operating over 500 power units each. In 1940, the Interstate Commerce Commission remarked that there were a number of comparatively large motor carriers of property but that no one of them did more than 1 percent of the total business.⁶⁴

If economies of large-scale enterprise were evident in the motor-carrier industry, a tendency toward the formation of a few large firms would appear. Although some large units have developed, as we have seen, a large number of small operators persists. As yet there is no evidence of lower costs in the larger concerns. In fact, the operating ratios of the larger concerns have shown a tendency to be more unfavorable than those of the smaller concerns.⁶⁵ Evidence is too limited, however, to permit one to conclude that large units are either more or less economical in the trucking industry. An English writer has pointed out

⁶¹ I.C.C. release of July 20, 1943, entitled *Statistics of Class II and Class III Motor Carriers of Property, 1940 & 1941*, p. 9.

⁶² *Ibid.*

⁶³ From data in Interstate Commerce Commission, Bureau of Transport Economics and Statistics, *Statistics of Class I Motor Carriers, 1944*.

⁶⁴ *Annual Report, 1940*, p. 32.

⁶⁵ American Trucking Associations, Inc., Statistical Exhibits filed before the Interstate Commerce Commission in Ex Parte No. 123 (1937).

that there is no evidence of greater economy of operation among the large firms in the road transport industry of Great Britain.⁶⁶

SIZE OF FIRMS IN THE MOTOR-BUS INDUSTRY

In the intercity motor-bus industry there is somewhat greater concentration than in the trucking industry. Although there were only 155 Class-I carriers out of 1,222 motor carriers of passengers engaged in intercity transportation which were subject to the Interstate Commerce Commission's jurisdiction in 1939, the Class-I operators received 84.5 percent of the revenues of all intercity bus companies, and the 12 largest of them accounted for 42.2 percent of the revenues.⁶⁷ The various Greyhound companies comprising the Greyhound system of lines constitute the dominant organization in intercity bus transportation.⁶⁸

PROPRIETORSHIP IN THE MOTOR-CARRIER INDUSTRY

Because of the large number of small concerns in the trucking industry the single proprietorship and the partnership forms of organization are common. Of the 21,424 intercity carriers of property subject to the jurisdiction of the Interstate Commerce Commission in 1939, 70.3 percent were single proprietorships, 12.4 percent were partnerships, and only 17.3 percent were corporations.⁶⁹ The intercity bus lines, however, showed 50.5 percent incorporated, 41.7 percent single proprietorships, and 7.8 percent partnerships.⁷⁰

CAPITAL REQUIREMENTS OF MOTOR CARRIERS

Compared with the railroad industry the capital requirements of motor carriers are small relative to the volume of business which they do. This is because motor carriers make use of publicly provided highways, while railroads have a huge investment in their rights-of-way, roadbed, and tracks. The gross operating revenues of the Class-I motor carriers of property in 1943 were \$645,673,297, and their investment less depreciation in carrier property was \$88,293,835. Thus their revenues for the year were more than seven times their investment.

⁶⁶ Cadbury, L. J., "Large and Small Firms: A Note on Costs in the Road Transport Industry," 45 *Economic Journal* 789, 790 (1935).

⁶⁷ Morgan, Breitenbach, and Riley, *op. cit.*, p. 407.

⁶⁸ The Greyhound system as it existed in 1936 is described in *Greyhound Mergers, 1936*, 1 Motor Carrier Cases 342 (1936).

⁶⁹ Morgan, Breitenbach, and Riley, *op. cit.*, p. 405.

⁷⁰ *Ibid.*, p. 407.

In the same year the operating revenues of the Class-I line-haul railways were \$9,054,724,000 and their investment less depreciation reserve was \$22,205,932,000. For the railroads, therefore, the gross revenues of the year were only about two-fifths of their investment.

MOTOR-CARRIER AND RAILROAD OPERATING RATIOS

Because the amount of capital invested in the motor-carrier industry is small relative to the amount of business done, only a small margin of revenues over expenses is necessary to pay a return on invested capital. In the railroad industry, on the other hand, the margin of operating revenues over expenses must be substantial to pay an adequate return on investment.

TABLE XXXI
OPERATING RATIOS OF CLASS-I LINE-HAUL RAILWAYS AND
CLASS-I MOTOR CARRIERS OF PROPERTY, 1939-45.⁷¹

Year	Class-I Line- Haul Railways	Class-I Motor Carriers of Property
1939.....	73.05	95.1
1940.....	71.90	95.5
1941.....	68.53	94.8
1942.....	61.63	94.4
1943.....	62.48	96.6
1944.....	66.57	97.0
1945.....	...	99.3

This difference between the motor-carrier industry and the railway industry is shown in the differences in the operating ratios which characterize the two industries. In the motor-carrier industry an operating ratio of 90 or 95 may provide a sufficient margin to pay a generous return on the capital invested. In the railroad industry such a high operating ratio would be entirely inadequate, and an operating ratio of 70 or less might be necessary. Table XXXI shows the operating ratios of Class-I railroads and Class-I motor carriers of property in recent years.

FINANCING THE MOTOR-CARRIER INDUSTRY

The comparatively small size of firms in the motor-carrier industry and the fact that the capital requirements are small make it possible for the industry to be financed in large part without resort to the capital markets. The larger firms, of course, may issue securities which are sold to the public; but the capital for the smaller operators is often provided

⁷¹ From annual reports of the Interstate Commerce Commission, or computed from data therein.

by a very few individuals, and in many cases a large part of the capital invested represents reinvested earnings of the business.

COMPARATIVE COST OF TRANSPORTATION BY RAIL AND MOTOR TRUCK

It is generally conceded that motor carriers can transport freight for short distances at lower costs than railroads, but that for long distances the railroads have a cost advantage. In the movement of small shipments in less-than-carload lots the motor carriers have a cost advantage even over long distances.

Because of wide variations in both rail and motor-carrier costs due to varying conditions, and also because of the limitations of cost-accounting methods, generalizations about the comparative costs of transporting freight by the two modes of transport must be accepted with some reservation. A study of costs of transportation by the various modes of transport which was made by the Board of Investigation and Research showed that in the Mississippi Valley average costs of transporting less-carload freight by motor truck were much below railroad costs. In fact, rail costs, including return on investment, were frequently twice as great as motor-carrier costs.⁷² If the costs of moving carload traffic and truckload traffic are compared, however, the results shown by the same study are quite different. If a truckload is considered as 10 tons net weight, and a carload as 30 tons, the analysis indicates that the railroads have a distinct cost advantage over motor transportation for distances exceeding 60 miles.⁷³ For shorter hauls the costs were about the same by rail and motor carrier. The spread between trucking costs and rail costs widens rapidly as the length of the haul increases.

A study of the comparative cost of transporting new automobiles by rail and by motor truck made by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission in connection with a rate case before the Commission revealed that costs by common-carrier trucks carrying four automobiles were lower than fully distributed rail costs for distances up to about 230 miles. At 230 miles costs by both forms of transportation were the same, while for greater distances the trucking costs became progressively higher than rail costs.⁷⁴

⁷² *Comparison of Rail, Motor, and Water Carrier Costs*, 79th Cong., 1st sess., Senate Doc. No. 84 (1944), pp. 3-5.

⁷³ *Ibid.*, p. 9.

⁷⁴ *New Automobiles in Interstate Commerce*, 259 I.C.C. 475, 528 (1945).

Trucking costs were below "out-of-pocket" rail costs as computed by the Bureau for distances up to 120 miles.⁷⁵

CONSTANT AND VARIABLE COSTS

Unlike the railroad industry the motor-carrier industry is not characterized by a substantial element of fixed or constant costs.⁷⁶ The costs incurred by motor carriers are of a sort which tend to vary with the volume of business carried. This difference between motor carriers and railroads arises largely from the fact that motor carriers do not have to provide and maintain their own highways. The substantial contributions which motor carriers make for the use of public highways, furthermore, tend to vary with the use made of the highways. The contributions made through gasoline taxes vary with road use; mileage and ton-mile taxes vary with the amount of traffic carried; and, to a certain extent, registration fees also vary with the volume of traffic since they vary with the amount of equipment used.

The Bureau of Transportation Economics and Statistics of the Interstate Commerce Commission considers that not more than 10 percent of motor-carrier operating costs can be considered as constant.⁷⁷ These conclusions are based on the fact that the equipment and other facilities used by motor carriers can be readily adjusted to the volume of business done.

If motor-carrier costs can be considered as largely variable from a practical standpoint, the rate-making policies of motor carriers would tend to be quite different from the rate-making policies of railroads. The limits within which motor carriers can reduce rates below fully allocated cost in order to meet competition is much more restricted than in the case of railroads. Similarly there is less scope for the play of value-of-service factors in motor-carrier rate making. Likewise, personal and place discrimination are likely to be less extensive in the motor-carrier industry than in the railroad industry.

MOTOR-CARRIER RATES

Because fixed costs are less important in the motor-carrier industry than in the railroad industry, we would expect to find differences in the

⁷⁵ *Ibid.*

⁷⁶ For a discussion of fixed costs in the railroad industry see pp. 134-137, *supra*.

⁷⁷ Exhibit in Ex Parte MC-22, *Motor Carrier Costs in New England* (Washington, mimeographed, 1944), p. 75; also Statement No. 4616, *The Meaning and Significance of the Out-of-Pocket, Constant, and Joint Costs in Motor Carrier Operation* (Washington, mimeographed, 1946), p. 12.

motor-carrier and the railroad rate structures. Such differences do exist, as will be pointed out shortly, but to a considerable degree the common carriers of freight by motor vehicle have followed the pattern of railroad rates. This is due in part to the fact that the motor carriers were required by the Motor Carrier Act of 1935 to publish and file rates in a comparatively short time, and it was easier to adopt the pattern of railroad rates than to construct an entirely independent structure of rates. They were also in competition with rail carriers and could not charge rates much higher than rail rates. On the other hand, they could charge above-cost rates where the railroads resorted to the same policy.

MOTOR-CARRIER FREIGHT CLASSIFICATION

The motor-freight classification most widely used throughout the United States is the National Motor Freight Classification. In this classification the ratings are generally the same as the railroad classification ratings.⁷⁸ The less-truckload ratings in the National Motor Freight Classification have generally corresponded to the railroad less-than-carload ratings. Lower volume ratings on quantities corresponding to carloads were originally provided in the classification and were commonly the same as the railroad carload ratings.⁷⁹

In New England the motor carriers adopted a different policy. Two classifications are in use in New England: the Official Motor Classification, and the Coordinated Motor Classification. The ratings in the two New England classifications are generally the same, although there are differences in the rules governing the transportation of freight at the class rates.⁸⁰ The New England classification ratings are based largely on weight-densities of the various articles.⁸¹ Six classes of freight are recognized: classes 1 to 5, and class 4 times 5. Although the ratings are based largely on weight-densities, articles which are particularly fragile, or particularly susceptible to theft, or which have other particularly unfavorable transportation characteristics, are given somewhat higher ratings than would otherwise apply, and some articles which are particularly susceptible to rail competition are given ratings somewhat lower

⁷⁸ See *New England Motor Carrier Rates*, 8 M.C.C. 287, 292-293 (1938); *Minimum Class Rate Restrictions*, 44 M.C.C. 367, 369-370 (1945).

⁷⁹ *Rates over Freight Forwarders, Inc.*, 4 M.C.C. 68, 74 (1937); *Incandescent Electric Lamps or Bulbs*, 44 M.C.C. 501 (1945).

⁸⁰ *New England Motor Carrier Rates*, 8 M.C.C. 287, 290-291 (1938).

⁸¹ See *Classification Rating on Radio Bulbs or Tubes*, 2 M.C.C. 25 (1937), Proposed Report of Examiner Coyle in I.C.C. Ex Parte No. MC-22, p. 2.

than their densities warrant.⁸² The Interstate Commerce Commission once pronounced the New England system of classification the sounder of the two methods of classifying motor-carrier freight "from the standpoint of abstract reason," but expressed some doubt as to its practicability if the railroads continued their old system of freight classification.⁸³ Whether or not the New England carriers should continue their own method of classifying freight or be forced into line with the rest of the motor carriers is in issue in proceedings now before the Commission.⁸⁴

MOTOR-CARRIER RATES AND RAIL RATES

Not only do the motor carriers throughout the country, exclusive of New England, tend to follow the rail system of freight classification, but they also tend to charge the same rates as the railroads,⁸⁵ although there are many individual commodities on which the motor-carrier rates may be greater or less than the rail rates.

Conditions prevailing during World War II upset general equality between rail and motor-carrier rates. The emergency increases in rates of about 6 percent authorized for the rail carriers in 1942⁸⁶ were applied to motor-carrier rates also; but when the Commission, in 1943, suspended the increases as applied to railroads,⁸⁷ the motor carriers continued to charge the higher rates. A further increase in motor-carrier rates in the East was authorized in *Increased Common Carrier Truck Rates in the East*,⁸⁸ and in New England in *Increased Common Carrier Truck Rates in New England*.⁸⁹ These decisions left the motor-carrier rates east of the Mississippi River about 10 percent higher than the corresponding rail rates, and about 6 percent above rail rates in the West. It would appear that the temporary authorization of higher rail rates by the Commission in *Increased Railway Rates, Fares & Charges, 1946*⁹⁰ reduced the spread between motor-carrier and rail rates in the East and substantially equalized them in the West.

⁸² Coyle, *op. cit.*, p. 4.

⁸³ *New England Motor Carrier Rates*, 8 M.C.C. 287, 321-322 (1938).

⁸⁴ Ex Parte No. MC-22, *Motor Carrier Rates in New England*, and No. MC-C-150, *Motor Freight Classification*.

⁸⁵ *Rates over Freight Forwarders, Inc.*, 4 M.C.C. 68, 74 (1937); *Stoves from Alabama & Tennessee to Interstate Points*, 4 M.C.C. 641, 643 (1938); *Central Territory Motor Carrier Rates*, 21 M.C.C. 473, 474 (1940).

⁸⁶ *Increased Railway Rates, Fares, & Charges, 1942*, 248 I.C.C. 545.

⁸⁷ 255 I.C.C. 357.

⁸⁸ 42 M.C.C. 633 (1943).

⁸⁹ 43 M.C.C. 13 (1943).

⁹⁰ 264 I.C.C. 695 (1946).

Classification exception ratings and commodity rates are important in the motor-carrier industry, although a larger proportion of the traffic of motor carriers than of railroads moves on class rates. A study made of the motor-truck traffic in the Middle West by the Office of Defense Transportation in 1945 revealed that about 28 percent of the tonnage of motor carriers moved on exception ratings, and another 28 percent moved on commodity rates.⁹¹ Exception ratings and commodity rates may be established by motor carriers to equalize their rates with similar exception ratings and commodity rates of railroads, or they may be established to provide rates different from those charged by railroads.

VOLUME MINIMUM WEIGHTS

Railroads have long made a distinction between carload and less-carload shipments and have provided lower rates on carload lots. The motor carriers, for the same reasons, may properly distinguish between truckload and less-truckload shipments. The motor carriers, however, have in many cases adopted minimum weights which are substantially greater than the weight which can be loaded into a truck. Minimum weights which are in excess of the weight which can be loaded in a truck are sometimes called "volume minima." In one case the Commission explained the term by saying: "A volume minimum is distinguished from a truckload minimum in that the volume rate applies when a shipper tenders the volume minimum weight of a commodity for transportation at one time, even though it may exceed the carrying capacity of the largest vehicle available and must be transported in two or more vehicles, whereas a truckload minimum is generally understood to be the quantity which a carrier can transport in a single vehicle."⁹²

The use of minimum weights in excess of the weight which can be carried in a truck cannot be justified by cost-of-service considerations. Such shipments cannot ordinarily be transported at a lower cost per hundred pounds than a truckload shipment. The use of volume minima, however, can be explained in terms of the competition between motor carriers and railroads. The Commission has condemned the use of volume minima in a number of cases. The leading case is *Rugs & Matting from the East to Western Trunk Line Territory*.⁹³ The decision of

⁹¹ *Report of the Federal Manager of Motor Carrier Transportation Systems and Properties to the Director of the Office of Defense Transportation* (1946), p. 23.

⁹² *Stoves, Alabama & Tennessee to Interstate Ports*, 4 M.C.C. 641 (1938), note on page 643.

⁹³ 31 M.C.C. 193 (1941), 34 M.C.C. 641 (1942). For other instances see *Paper from Mechanic Falls, Maine, to Boston, Mass.*, 28 M.C.C. 196 (1941); *Activated Carbon from Texas to Kansas City*, 31 M.C.C. 597 (1942).

the Commission in this case, however, was reversed by the Supreme Court.⁹⁴ The implication of the Court's decision is that volume minima may not be condemned merely because they do not conform to cost-of-service standards, but that they may be justified, within limits at least, on the grounds that they are necessary to meet the competition of rail carriers.

MINIMUM RATE "STOPS"

As previously pointed out, most motor carriers adopted a freight classification similar to the railroad freight classification and initially published class rates which were substantially the same as the railroad class rates. It soon became apparent, however, that the motor carriers could not carry the lower rated commodities profitably, particularly for the longer distances. The device of minimum rate "stops" was intro-

TABLE XXXII
AVERAGE REVENUES PER TON-MILE, RAILROADS
AND MOTOR CARRIERS, 1940-44.⁹⁶

Year	Average Revenue per Ton-Mile	
	Railroads (Cents)	Motor Carriers (Cents)
1940	0.96	3.99
1941	0.94	3.77
1942	0.94	3.81
1943	0.94	3.82
1944	0.96	4.07

duced to remedy this difficulty, whereby the rates on the low-rated freight were made the same as on a higher class. Thus the fifth-class rate might be the lowest rate which a motor carrier would charge, even though the article in question might be rated sixth class or below. In some tariffs, rates would not be published for the lower classes of freight; but a tariff rule would provide that on articles given ratings for which no class rates were published, the rate would be that applicable on the lowest class for which rates were published. The Commission rather reluctantly approved of minimum rate stops in 1945.⁹⁵

That motor carriers have found it necessary to resort to rate stops demonstrates that the greatest field of usefulness of motor carriers is in the transportation of high-class traffic and that they cannot compete with the railroads for low-grade traffic, particularly on the longer hauls. That motor carriers are predominantly carriers of high-class freight is

⁹⁴ *Eastern-Central Motor Carrier Association v. United States*, 321 U.S. 194 (1944).

⁹⁵ *Minimum Class Rate Restrictions*, 44 M.C.C. 367 (1945).

⁹⁶ Data for railroads from I.C.C., *Annual Report, 1945*, p. 136; data for motor carriers furnished by I.C.C., Bureau of Transport Economics and Statistics.

borne out by a comparison of the average revenue per ton-mile received by the railroads and by motor carriers. In recent years the average revenue per ton-mile received by the railroads has been slightly less than 1 cent, while the amount received by motor carriers of property in intercity service has been between 3 and 4 cents, as is shown by Table XXXII.

SOME EFFECTS OF MOTOR TRANSPORT DEVELOPMENT

We now turn to a consideration of some of the effects of the development of motor transportation on the railroads and of the railroad reaction thereto.

DIVERSION OF TRAFFIC FROM RAILWAYS

Motor-truck transportation has made serious inroads on railroad traffic. The loss of traffic in less-than-carload lots has been particularly serious. The decrease in such traffic on the railroads began before carload traffic had reached its peak prior to the depression of the thirties, and the later decline was greater than that of the carload traffic. The volume of merchandise handled by highway users in 1932 was more than twice that transported in less-than-carload lots by rail.⁹⁷ The loss of traffic by railroads, however, has not been limited to the L.C.L. traffic. Some commodities handled in carload lots and formerly considered almost exclusively rail traffic have been diverted to trucks, at least for short hauls.

Mention has already been made of the use of motor trucks in transporting fruits, vegetables, and livestock to market. In 1933 the Interstate Commerce Commission pointed out that rail carriers were losing large quantities of shipments of fruits and vegetables, livestock, canned goods, cottonseed, cotton, sugar, furniture, soap, wool, coffee, packing-house products, automobiles, and beverages. The southwestern carriers estimated that about 28 percent of their tonnage was subject to direct and keen truck competition.⁹⁸

Some attempts have been made to indicate the diversion of traffic from railway to trucks by the divergence between indices of the physical volume of production and indices of railroad freight traffic.⁹⁹ The most careful study of this sort was that made by the Bureau of Statistics of

⁹⁷ Federal Coordinator of Transportation, *Merchandise Traffic Report*, p. 4.

⁹⁸ *General Rate Level Investigation*, 195 I.C.C. 5, 47 (1933).

⁹⁹ "The Railways' Loss of Traffic to Competitors," 97 *Railway Age* 223 (1934).

the Interstate Commerce Commission.¹⁰⁰ This study showed that the railroads are carrying a smaller proportion of the total physical volume of goods produced than they formerly did. In 1936 they carried 196 million tons of freight less than they would have carried if they had transported the same proportion of the goods produced that they carried in the years 1923-25. These studies point to the conclusion that there has been a large diversion of traffic to other forms of transportation. They may also indicate that changes in the location of industries and a breaking down of geographical division of labor are occurring in an effort to avoid high transportation charges.

Although the intercity freight moved by motor truck is not a large proportion of the total intercity freight moved by all agencies of transportation, the loss of traffic to motor vehicles has affected railway revenues. There is no way of knowing the losses which have occurred from the actual diversion of traffic to common and contract carriers and to private trucks, or from the reductions in rail rates which have been made to prevent the diversion of traffic to the highways.

RAILROAD HOSTILITY TO MOTOR TRANSPORTATION

When motor transport began to develop, the railroads paid little attention to it. They tended to minimize its importance, and, confident of the superiority of rail transportation, rested complacently in the belief that motor transport would never constitute a serious threat to them. As motor transport continued to grow in importance some railroads adopted an attitude of hostility toward it. This attitude soon expressed itself in a positive program designed to check the development of the new form of transport.

The railroads advocated the imposition of heavier taxes on motor vehicles, particularly upon carriers for hire. The alleged subsidy of highway transportation was constantly stressed by them, and is today. It is desirable that trucks and busses make adequate contribution toward the provision and maintenance of highways, but opinions as to what constitutes adequate compensation are bound to vary widely.¹⁰¹

The railroads have also advocated greater restrictions on the weight and length of trucks, and other limitations which are designed to protect the highways from destruction or to provide greater safety to high-

¹⁰⁰ Interstate Commerce Commission, Bureau of Statistics, *Fluctuations in Railway Freight Traffic Compared with Production, Class I Steam Railways, 1926-1936* (Washington, mimeographed, 1937).

¹⁰¹ This problem is discussed at some length in Chapter XXXIV.

way users and the general public. The necessity for such limitations and restrictions is conceded, and the railroads have quite properly called public attention to this need, but it is reasonable to believe that these measures have often been proposed for the purpose of rendering highway transportation unprofitable in an effort to drive traffic back to the railroads.

Lastly, the railroads have opposed the granting of certificates of convenience and necessity to bus and truck companies wherever the latter would come into competition with established rail services. Where the existing State legislation does not give them an opportunity to do this, they have urged legislation that would require certification of highway carriers. Often when motor-vehicle regulatory legislation has been enacted, the influence of railroad interests has been observable in the provisions of the law. Although there is much to be said in favor of regulating motor transportation and even of a policy of protecting rail carriers from motor-vehicle competition under some conditions, it must be recognized that the railroads have demanded such regulation for selfish reasons.

The attitude of hostility toward motor-vehicle transportation has by no means disappeared; but as motor transportation has established a place for itself in our transportation system, and as its contribution to the public welfare has been recognized, the futility of a policy of repression and restriction has become more and more apparent. As a result, railroads are now devoting themselves more and more to the changes in rates, services, and operating methods, which the new form of transportation is making necessary. Although this process has not been completed, it may be well to survey some of the more important changes that have taken place to meet the challenge of motor-vehicle competition.

RAILROAD ABANDONMENTS

Railroads have found it desirable to abandon portions of their mileage, particularly short branch and feeder lines on which traffic was light, in an effort to reduce operating expenses. A study of railroad abandonments from 1921 to 1937 in New England showed that 43 percent of them were caused by highway competition.¹⁰² A more recent study of abandonments for the country as a whole shows that highway

¹⁰² Cherington, Charles, "Railroad Abandonment in New England, 1921-37," 14 *Journal of Land & Public Utility Economics* 40 (1938).

competition was responsible for 58 percent of the mileage in abandonments authorized by the Interstate Commerce Commission from 1920 to 1943.¹⁰³ Although highway competition has been the cause of many abandonments of this nature, there is no reason to believe that motor transportation can replace railroad transportation as the major form of transport.

REDUCTIONS IN RAILROAD RATES

Motor-truck competition has brought about many reductions in railroad rates. An examination of railroad rate cases before the Interstate Commerce Commission will reveal hundreds of instances in which railroads have deemed it necessary to reduce rail rates to meet competition from common and contract carriers, and in some instances from private trucking. A study of the rate structure on any important commodity will, with but few exceptions, provide illustrations of modifications in the general level or in the structure of rates that are the result of highway competition.

An outstanding example of widespread rate reductions, principally to meet motor-carrier competition, occurred in 1940, when the railroads in the South reduced less-carload ratings on more than 3,500 commodity descriptions.

The growing use of "all-commodity" or "all-freight" rates for application on carload mixtures represents an attempt on the part of railroads to meet motor-truck competition on high-grade traffic that is particularly susceptible to diversion to highway carriers. These rates, usually on carloads, apply regardless of the ratings provided by the freight classification on the particular articles included in the mixture. All-commodity rates were first introduced about 1932. They were made 70 percent of first class, but now all-commodity rates commonly range from 36 to 50 percent of first class.¹⁰⁴

GENERAL IMPROVEMENTS IN SERVICE

Much improvement in railroad service has been brought about in the attempt of railroads to recover traffic. There has been a general speeding-up of merchandise traffic, and the establishment of overnight service for distances within which a comparable service is provided by

¹⁰³ Bureau of Transport Economics & Statistics, Interstate Commerce Commission, *Railroad Abandonments, 1920-1943* (Washington, mimeographed, 1945), p. iii.

¹⁰⁴ For further discussion of all-freight rates see Locklin, D. Philip, "Rates and Rate Structures," in National Resources Planning Board, *op. cit.*, pp. 104-106.

truck. Changes in train schedules and the keeping of freight stations open for longer hours have removed some of the inconveniences in rail transportation.

PICK-UP AND DELIVERY SERVICE

One of the most important modifications in railway service which can be attributed to motor-vehicle competition has been the establishment of pick-up and delivery service by truck for less-than-carload freight. This service became practically universal in 1936, when the Interstate Commerce Commission permitted tariffs to become effective which provided for this service throughout Official Territory.¹⁰⁵

RAILROAD USE OF TRUCKS AND BUSES

Railroads have found use for motor trucks not only for pick-up and delivery service but in other ways also. A common use of trucks is as a substitute for uneconomical way-freight trains in the handling of less-carload traffic. Many railroads have been authorized to move less-carload freight by motor truck from small stations to concentration points from which the traffic is handled by rail. In the same way less-carload freight is distributed by truck from such concentration points to the smaller communities served by the railroad.¹⁰⁶ Railroads have also found it economical to substitute bus service for local passenger-train service where the volume of traffic is light.

MOTOR TRANSPORTATION HAS A PLACE IN OUR TRANSPORTATION SYSTEM

Neither railroad opposition nor railroad attempts to regain lost traffic can destroy motor-truck transportation. The truck performs a useful service and has a place in the transportation system. The railroads have not yet made all of the adjustments which the new system of transportation will make necessary. One of the important problems of the immediate future is the coordination of the two systems of transportation. Coordination means that each agency of transportation will confine itself to the field of operation in which it is superior to the other. No exact line of demarcation can be drawn to delimit these fields, and there must undoubtedly be considerable overlapping. Coordination

¹⁰⁵ *Pick-Up and Delivery in Official Territory*, 218 I.C.C. 441 (1936). This service was described more fully on p. 630, *supra*.

¹⁰⁶ See ch. XXXIV.

is partly a problem of regulation and control, and will be considered in a later chapter.

SELECTED REFERENCES

General discussions of highway transportation are in S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), chs. XXXIV and XXXV; S. Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. V; Emory R. Johnson, Grover G. Huebner, and G. Lloyd Wilson, *Transportation: Economic Principles and Practices* (New York, Appleton-Century, 1940), chs. 45-46.

Two volumes devoted to motor-truck transportation are Ford K. Edwards, *Principles of Motor Transportation* (New York, McGraw-Hill, 1933), and H. E. Stocker, *Motor Traffic Management* (New York, Prentice-Hall, Inc., 1938).

Much material on the development of truck transportation is to be found in the two reports of the Interstate Commerce Commission: *Motor Bus and Motor Truck Operation*, 140 I.C.C. 685 (1928), and *Coordination of Motor Transportation*, 182 I.C.C. 263 (1932). A study of the Bureau of Railway Economics, *An Economic Survey of Motor Vehicle Transportation in the United States*, Special Series No. 60 (Washington, 1933), is also valuable for factual material. There is an excellent treatment of motor transportation in H. G. Moulton, *The American Transportation Problem* (Washington, The Brookings Institution, 1933), chs. XXIV and XXVII-XXIX.

The best treatment of highway policy is Charles L. Dearing, *American Highway Policy* (Washington, The Brookings Institution, 1941). There is also a good article on the subject by Wilfred Owen entitled "The Provision of Highway Facilities," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 384-499, and also a good discussion of the subject in H. G. Moulton, *op. cit.*, chs. XXV and XXVI.

There is good material on both highway development and motor transportation in Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. IV (Washington, Government Printing Office, 1940), and in Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), pp. 188-322. There is a mine of information about highways and highway transportation in the report of the Interstate Commerce Commission entitled *Federal Regulation of the Sizes and Weight of Motor Vehicles*, 77th Cong., 1st sess., House Doc. No. 354 (1941).

CHAPTER XXIX

REGULATION OF HIGHWAY TRANSPORTATION

IN THE preceding chapter we made certain observations concerning motor-vehicle transportation over highways. The present chapter is concerned with the regulation of such carriers.

In studying the control of motor transportation three types of regulation must be distinguished: (1) regulation to protect the highway; (2) safety regulation; and (3) regulation of the business of transporting goods for hire over the highways.

REGULATION TO PROTECT THE HIGHWAY

Under the first type of regulation are the weight limitations imposed upon vehicles to prevent destruction of road surfaces. There is little question concerning the need for regulation of this type, and it is appropriate that control over the weight of motor vehicles rest, in the first instance, with the States. The States have built highways at great expense, and it is fitting that they impose such restrictions as may be necessary to prevent their destruction.

Although it is conceded that regulation of this type is desirable, there is frequent controversy over just what restrictions should be imposed. The railroads have been interested in having weight limitations imposed on motor vehicles that will reduce the competitive threat of motor transportation. It is clear that weight limitations should be imposed for the purpose of protecting highways and not for the purpose of making truck transportation unprofitable or for driving traffic back to railroads.

Weight limitations are of various types. Gross weights may be fixed in order to limit the weight of the load as a whole. Maximum weights per axle or per wheel may be used to limit the concentration of loads; and weight per inch of tire width may be used to assure that vehicles are equipped with tires of sufficient size to sustain the load without damage to the highway.

Some States have been much more strict in limiting weights of vehicles than others. These differences may result from differences in the highways and bridges; but as standards of highway construction have become more nearly uniform for main-travelled roads, there is less

justification for wide variations in weight limitations. For many years Kentucky permitted a gross weight of only 18,000 pounds, although most States permitted weights of from 30,000 to 40,000 pounds.

The diversity in State requirements relating to maximum weights of motor vehicles has been a handicap to long-distance transportation by motor vehicle that must cross State boundaries. Efforts to remedy this situation have proceeded along different lines. The American Association of State Highway Officials has recommended certain uniform weight requirements, but the establishment of uniformity by voluntary action of 48 States is likely to be slow, if not impossible.

Efforts have also been made to overthrow the excessively strict weight requirements through judicial proceedings in which it is alleged that the unreasonable weight restrictions of some States impose an unconstitutional burden on interstate commerce. These efforts have met with little success, since the courts are loath to interfere with the judgment of the State legislatures concerning appropriate weight limits.¹

A third method of dealing with the problem is by means of direct Federal invasion of this field of regulation. This could take various forms, representing varying degrees of Federal control.

An extreme form of Federal interference would be for the Federal Government to occupy entirely this field of regulation, so far as interstate commerce is concerned, substituting Federal for State restrictions. The constitutionality of Federal invasion of this field to such an extent, however, has been questioned.

A lesser degree of Federal interference is represented by the recommendations made by the Interstate Commerce Commission in 1941. The Commission was directed by the Motor Carrier Act of 1935 to investigate and report on the need for Federal regulation of the weights and sizes of motor vehicles engaged in interstate and foreign commerce. The Commission's report did not recommend that the Federal Government attempt to oust the States completely from control over weights of trucks engaged in interstate commerce. It did recommend, however, that it be empowered to hear complaints against specific State limitations that were alleged to be an unreasonable obstruction to interstate commerce, and that it be given the power to prescribe limitations in such instances in lieu of State restrictions found burdensome.² Federal

¹ See *South Carolina State Highway Department v. Barnwell Bros.*, 303 U.S. 177 (1938).

² *Federal Regulation of the Sizes and Weight of Motor Vehicles*, 77th Cong., 1st sess., House Doc. No. 354 (1941).

interference would thus be limited to particular situations in which the State restrictions were found to be unreasonable and to constitute an undue burden on interstate commerce. The Commission believed that interference with State control to this extent would not be unconstitutional since it is recognized that Congress has the power to remove unreasonable restrictions on interstate commerce. Legislation along the lines suggested by the Commission has not been enacted, and it is vigorously opposed by State officials.

The Board of Investigation and Research recommended another method of dealing with the problem through Federal interference. It suggested that a national system of interstate highways be designated by joint action of the Public Roads Administration and State highway departments and that size and weight limitations for vehicles on these highways be fixed by the Federal Government. The national system of highways would be extended and enlarged from time to time by designating other highways as parts of the system. Standards of construction of these highways would be such as were necessary to accommodate vehicles of the permissible weights.³

SAFETY REGULATION

Included in this type of regulation are the numerous measures designed to protect the general users of the highway. These measures specify limitations on the width of trucks and busses; maximum heights; maximum lengths of vehicles and of combinations of vehicles; speed limits; requirements to insure the equipment of vehicles with safety appliances such as speedometers, adequate brakes, horns, lights, wind-shield wipers, mirrors, and bumpers. Under this type of regulation also is included the requirement that motor-vehicle operators carry liability insurance against personal injuries and property damage caused in the operation of vehicles. Insurance for the protection of passengers and cargoes, however, does not come under this type of regulation, but under the third type.

The desirability of safety regulation is generally admitted, but such regulations should be made with careful consideration of their purpose and should not be imposed with the object of rendering highway transportation unprofitable. Diversity of State requirements undoubtedly operates to some extent as a hindrance to the use of the highways in

³ *Interstate Trade Barriers Affecting Motor-Vehicle Transportation*, 79th Cong., 1st sess., Senate Doc. No. 81 (1945).

interstate commerce.⁴ The extent to which the Federal Government has invaded this field of regulation will be discussed later.

REGULATION OF THE BUSINESS OF TRANSPORTATION FOR HIRE

Regulation of this type includes the control of rates and services, the requirement that certificates of convenience and necessity or permits to operate be obtained by operators for hire, and that common carriers obtain liability protection for shippers and passengers. It is this type of regulation that gives rise to the greatest controversy and the most difficult problems.

IS REGULATION NECESSARY?

Regulation of motor carriers has sometimes been accepted too uncritically. It is often assumed that because railroads are regulated motor carriers must also be regulated. Railroad regulation has been found necessary because of the peculiar economic characteristics of the industry. If motor carriers possess the same economic characteristics, they will need to be regulated for the same reason. If they do not possess the same characteristics, regulation may not be necessary, or if necessary, it may be for quite different reasons.

The question is therefore raised whether the motor-carrier industry, like the railroad industry, is naturally monopolistic. Is it an industry in which competition will not work satisfactorily and will give way to monopoly?

The motor-carrier industry is unlike the railroad industry in important respects. The motor-carrier business does not require the large investment in fixed and specialized capital that characterizes the railroad industry. The highway is provided by the State, and the investment of the motor-vehicle operator is largely an investment in equipment, in garage facilities, and possibly in terminal property. Motor trucks are not fixed capital, nor are they so specialized as to be of use only for common-carrier purposes. They are movable and readily salable. The result is that the trucking concern can expand and contract its facilities as traffic conditions require. Consequently there is little possibility of a large unused capacity developing, such as inevitably occurs in the early stages of a railroad enterprise. It was pointed out in an

⁴ For a description of some difficulties encountered by interstate truck operators because of diversity of weight limitations or of safety requirements, see Hearings Before Committee on Interstate and Foreign Commerce, House of Rep., 73d Cong., 2d sess., on H.R. 6836—*Regulation of Interstate Motor Busses and Trucks on Public Highways* (1934), pp. 404-407.

earlier chapter that competition was not a regulator of the railroad rate level because of the fixed and specialized character of railroad capital equipment. The industry could operate at high profits without inducing a duplication of facilities, or could operate for long periods of time with little or no return on capital. But the motor-transportation business appears to be one in which a flow of capital into and out of the industry can readily occur. For this reason it would not operate for long without a return on capital, nor would excessive profits appear possible for long.

The large proportion of fixed or constant costs was mentioned in an earlier chapter as the source of a number of peculiarities of railway practice, namely, discrimination in rates and rate cutting on the out-of-pocket-cost theory. For this reason railroad competition was admitted to be "ruinous." But the motor-carrier industry has a much smaller proportion of constant or indirect costs and a larger proportion of direct or variable costs. Since motor-vehicle operators do not have the large mass of constant expenses that characterize railroads, the evils of discrimination and ruinous competition are less likely to arise.⁵

Some analyses of trucking costs reveal, however, that there is an element of constant costs in the trucking industry. This is to be expected, since all businesses have some invariable expenses. Common carriers, with an extensive organization and with investment in terminal facilities, have a larger element of constant costs than contract haulers. The principal constant costs of trucking concerns consist of registration fees and taxes, insurance, and depreciation on trucks, if the latter is put on a time and not on a mileage basis. If these are considered as constant costs it will be apparent at once that they differ from many of the constant expenses of a railroad. They depend upon the amount of equipment, and this can be adjusted to the business available. Many of the constant costs, therefore, are constant for only short periods of time. It has sometimes been pointed out that even with railroads the constant expenses are variable in the long run. But it is clear that the constant expenses of a motor carrier are constant only for a very short period and that ability to adjust the facilities to the amount of business makes the constant expenses become variable over longer periods of time. The peculiar conditions in the railroad industry which have made

⁵ This point is discussed in Peterson, G. S., "Motor-Carrier Regulation and Its Economic Bases," 43 *Quarterly Journal of Economics* 604 (1929), and in Morrison, H., "Economic Justification for Regulating Competitive Truck and Rail Rates," 14 *Journal of Land & Public Utility Economics* 66 (1938).

regulation necessary do not exist to so great an extent in the motor-carrier industry.

Although regulation of motor carriers may not be necessary for exactly the same reasons that require railroads to be regulated, it does not follow that regulation of motor carriers is undesirable. A study of motor transportation as it existed prior to the establishment of effective regulation reveals certain undesirable and objectionable features for which a remedy was sought. Some of these practices were similar to railroad practices considered objectionable; others were peculiar to the motor-carrier industry.

OBJECTIVES OF MOTOR-CARRIER REGULATION

An examination of the efforts to bring about regulation of motor carriers shows that certain well-defined objectives were being sought. These may be outlined as follows:

(1) *Stability of Rates.*—The shipping public has long sought a certain degree of stability in the rates charged by common carriers. Unstable rates inject an element of uncertainty in business transactions that is disconcerting to shippers. Business transactions are constantly entered into which involve calculations based on freight rates at a given time, usually in the immediate or near future. Calculations of this sort are impossible if freight rates are fluctuating. Rates can be stabilized by a requirement that they be published and that they cannot be changed except on due notice. Although motor-truck rates, if unregulated, will not vary as widely as rail rates under similar circumstances because of the difference in the nature of transportation costs, desirable stability cannot be attained without some degree of control. Stability in railroad rates was obtained through the provision of the Act to Regulate Commerce, and subsequent amendments, and through the provisions of the Elkins Act of 1903.

(2) *Prevention of Discrimination.*—Personal discrimination and unjust discrimination between places and particular descriptions of traffic are objectionable regardless of the transportation agency which resorts to the practice. Again we may note that the motive for discrimination is not so strong among highway carriers because their expenses are largely direct expenses. But discrimination by motor carriers has not been entirely absent. Legislation is needed to stop this abuse to the extent that it exists.

(3) *Financial Responsibility.*—Means of insuring financial respon-

sibility on the part of motor carriers in order that they may be able to meet judgments against them arising from motor-vehicle accidents and from loss or damage to goods carried is a problem that is peculiar to the industry. The ease with which persons may enter the business of transporting goods for hire has intensified this problem. Many persons have gone into the business without adequate resources to meet valid claims against them. Regulation attempts to remedy this difficulty in various ways. Financial responsibility is almost always considered by regulatory authorities in determining whether a certificate of public convenience and necessity should be granted to a proposed operator. The posting of bonds or the carrying of insurance to satisfy judgments against them may also be required of common carriers by truck.

(4) *Dependable Service*.—Regulation has been considered desirable in order to insure dependable service. Common carriers by highway should assume the responsibilities which are ordinarily imposed upon other common carriers. Prior to the establishment of Federal regulation of motor carriers, complaints against truck operators on this score were not uncommon. The Federal Coordinator of Transportation stated in 1934 that there was a feeling that trucking concerns did not measure up in all respects "to the standards of responsibility expected of a public servant."⁶ He also referred to the fact that the motor-transport industry did not assume responsibility for complete coverage of the transportation needs of the area which it served in the same manner as railroads.⁷ Control over abandonment of operation and over other phases of motor-carrier service may be desirable for this reason.

(5) *Reasonable Rates*.—Regulation may be necessary to insure just and reasonable rates, even though competitive conditions are more likely to prevail in the motor-carrier industry than in the railroad industry. In many instances there may be little or no competition between motor common carriers over a given route. The policy of requiring certificates of convenience and necessity may result in excluding or limiting competition on a particular route. Even in the absence of restriction of entry into the industry, conditions of monopoly, duopoly, or oligopoly are more likely to prevail over a given route than conditions approaching perfect competition. Agreement among motor carriers, tacit or otherwise, is to be expected. Rail rates are often adopted by motor carriers,

⁶ *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), p. 23.

⁷ *Ibid.*

and this practice may result in rates higher or lower than motor-transportation costs warrant. The competition afforded by contract carriers may enable large shippers to avoid high common-carrier rates, or it may induce common carriers to maintain lower rates on certain traffic; but the business of small shippers is not sought by contract carriers, hence many shippers may be at the mercy of the common carriers. Similarly, the right to transport one's own goods as a private carrier may limit the charges of both common and contract carriers, but only the large shipper can resort to this practice, hence the small shipper has no alternative but to patronize common carriers. Under the circumstances, therefore, it seems wise to give commissions the power to determine the reasonableness of motor-carrier rates and to prescribe reasonable charges.

(6) *Financial Stability*.—Adequate and dependable motor-carrier service cannot be obtained unless the earnings of the operators are adequate. This may require some degree of control over the rates and competitive activities of motor carriers. It has already been suggested that competition between trucking concerns may work more satisfactorily than competition between railways because of the absence of a large element of fixed costs. Rate cutting of the ruinous type, however, has not been absent in the motor-carrier field. Prior to the establishment of regulation, established carriers were frequently complaining of ruinous rate cutting, particularly by new and inexperienced operators who were ignorant of real costs. The situation was aggravated by the ease with which one could enter the industry. The absence of any legal restrictions, and the small amount of capital required, enabled many persons with little training or experience to enter the industry. After regulation was established numerous cases arose in which it seemed necessary or desirable for the regulatory body to step in and put a stop to rate cutting of the disastrous type. Even today, and among long-established carriers, there are many rates which are depressed below a remunerative level.⁸

To aid in the attainment of greater financial stability in the motor-carrier industry two control devices are commonly used. The first is restriction of entry into the industry through requiring certificates of public convenience and necessity or permits for new operations. The

⁸ On this point see *Report of the Federal Manager of Motor Carrier Transportation Systems and Properties to the Director of the Office of Defense Transportation* (1946), pp. 22-23.

second is the prescription of minimum rates. Both of these powers carry with them grave dangers of abuse, and they should be exercised with caution. The inclusion of both of these controls in State and Federal legislation indicates that unrestricted competition in the motor-carrier industry was deemed incompatible with the attainment of financial stability in the industry.

(7) *Transport Coordination*.—Regulation is necessary to aid in bringing about coordination of rail and motor transportation. By coordination we mean fitting each agency of transportation into its proper place in the transportation system. This requires control over competitive relations. It does not require the elimination of all competition, yet each agency must be prevented from invading the field of operation in which the other agency is clearly superior.

STATE REGULATION

State regulation of motor carriers preceded Federal regulation by several years. By 1928 the transportation of passengers by motor vehicle was regulated in 43 States and the District of Columbia, and the transportation of property in 33 States and the District of Columbia.⁹ In 1932 the Interstate Commerce Commission was able to say that all States except Delaware attempted to regulate the transportation of passengers, and 39 States had laws regulating the transportation of property by motor vehicle.¹⁰

State laws have varied widely in their content and in the degree of success with which they have been administered. Many States have revamped their regulatory statutes one or more times. Following the enactment of the Federal Motor Carrier Act of 1935 a number of States enacted new regulatory laws patterned after the Federal statute. Thus Federal regulation has had the effect of bringing about greater uniformity in State regulation. Notwithstanding the differences in State regulatory statutes their general objectives and the pattern of regulation have been the same. It is unnecessary to describe these laws since the Federal regulatory system for motor carriers will be described below.

CONTROL OF CONTRACT CARRIERS

State experience demonstrated that contract carriers had to be regulated as well as common carriers. There are two reasons for this. First, if common carriers are regulated and contract carriers are not, there is

⁹ *Motor Bus & Motor Truck Operation*, 140 I.C.C. 685, 741 (1928).

¹⁰ *Coordination of Motor Transportation*, 182 I.C.C. 263, 371 (1932).

a possibility that common carriers will resort to subterfuge for the purpose of escaping regulation. There are many cases on record in which common carriers have altered the nature of their business to give plausibility to the claim that they were not subject to regulation. The line between common carriers and contract carriers is not always easy to draw. The second reason for regulating contract carriers is that the latter can often make common-carrier service unprofitable. Common-carrier service is of greater benefit to the public than contract-carrier service because it serves the whole public. The contract carrier can often take the traffic of the common carrier's best customers and render the common-carrier's service unprofitable and perhaps destroy it. In so far as the costs of operation are lower for the contract carrier, it may be proper for it to obtain the business of the large shippers by quoting lower rates. But if there is not traffic enough for both common and contract carriers, protection of the common carrier may be justified.

The first attempts of the States to regulate contract carriers fared badly in the courts. In three different cases the Supreme Court of the United States held State statutes unconstitutional which attempted to regulate contract carriers by motor vehicle.¹¹ The difficulty encountered arose from the fact that contract carriers were not businesses "affected with a public interest."¹² The State of Texas, however, devised a scheme of regulation of both common and contract carriers that the Supreme Court upheld in *Stephenson v. Binford*.¹³ This plan of control imposed one system of regulation upon common carriers and a slightly different system upon contract carriers. Contract carriers were to obtain "permits," not "certificates of public convenience and necessity." The Texas law gave the commission power to prescribe the minimum rates of contract carriers, but not their maximum rates. The minimum rates were in no event to be less than those of rail carriers. Permits were not to be issued to contract carriers unless the commission was of the opinion that the proposed operation would not impair the efficient public service of any authorized common carrier then adequately serving the same territory.

After the decision in *Stephenson v. Binford* a number of States followed the lead of Texas and enacted legislation that distinguished between contract carriers and common carriers, applying to contract

¹¹ *Michigan Public Utilities Commission v. Duke*, 266 U.S. 570 (1925); *Frost v. Railroad Commission of California*, 271 U.S. 583 (1926); *Smith v. Caboon*, 283 U.S. 553 (1931).

¹² For the discussion of this concept see pp. 209-211, *supra*.

¹³ 287 U.S. 251 (1932).

carriers only such control as was deemed necessary to make the control of common carriers effective. This set the pattern for the Federal Motor Carrier Act of 1935.¹⁴ It is interesting to note that the basis for the requirement that contract carriers be treated differently than common carriers seems to be destroyed by the subsequent repudiation by the Supreme Court in *Nebbia v. New York*¹⁵ of the doctrine that there are two categories of businesses—those “affected with a public interest” and those not so affected.¹⁶ From a practical standpoint, however, it is desirable to continue the difference in treatment of common and of contract carriers.

DEMAND FOR FEDERAL LEGISLATION

Prior to 1925 the States exercised some degree of control over the affairs of interstate carriers operating in the State. But in *Michigan Public Utilities Commission v. Duke*, a case to which we have already referred, the Supreme Court held that a permit could not be denied an interstate operator. A similar position was taken in other cases, although the right of the State to impose regulations upon interstate operators was upheld when the regulations related to protection of the highways and the promotion of safety. The inability of the States to control the operations of interstate busses and trucks led to the demand for Federal legislation. After the Duke decision in 1925, the National Association of Railroad and Utilities Commissioners sponsored Federal regulation in the belief that without it State regulation was largely ineffective. Bills to this end were introduced in Congress in 1925 and during every succeeding session of Congress until the Motor Carrier Act finally became a law. The railroads supported the legislation in the belief that it would benefit them. The motor-carrier industry was divided, but there was a tendency for the older and better established concerns in the industry to support the legislation because it promised them some protection from the competition of “irresponsible” operators.

Opposition to the legislation came particularly from farm organizations which feared that regulation would hamper and restrict trucking operations and tend to restore a railroad monopoly. There was also some opposition within the motor-carrier industry, particularly among the contract carriers.

¹⁴ The Federal statute does not restrict contract carriers to the extent that the Texas statute did.

¹⁵ 291 U.S. 502 (1934).

¹⁶ See statement of Judge Frank in *Fordham Bros. Corp. v. United States*, 41 F. Supp. 712, 715 (1941).

The Interstate Commerce Commission kept in close touch with developments in the motor-carrier industry. In 1928 the Commission made a thorough investigation of motor-vehicle transportation and recommended Federal regulation of busses but not of trucks.¹⁷ In 1932, after another investigation, the Commission recommended Federal regulation of trucks also.¹⁸ Further stimulus to action resulted from the report of the Federal Coordinator in 1934 which urged the need for the regulation of interstate motor-vehicle operations.¹⁹ The bill finally enacted closely followed the one drafted by the Coordinator.

THE MOTOR CARRIER ACT

The Motor Carrier Act of 1935 was approved by the President on August 9, 1935. It was enacted as Part II of the Interstate Commerce Act, and the former Interstate Commerce Act became Part I of the enlarged Act. Originally cited as "The Motor Carrier Act, 1935," it is now cited as Part II of the Interstate Commerce Act. Minor amendments to the original Motor Carrier Act have been made, and the description which follows is of the amended Act unless otherwise indicated.

The Act places under the jurisdiction of the Interstate Commerce Commission carriers by motor vehicle engaged in interstate and foreign commerce. This includes purely intrastate operators handling shipments that move in interstate and foreign commerce. In the important matter of requiring certificates of public convenience and necessity, however, the Commission has no authority if the intrastate operator engaging in interstate or foreign commerce operates under a State certificate.

EXEMPTIONS

There are numerous exemptions from the provisions of the Act. It is important to note, however, that the exempt carriers are not exempt from those provisions which empower the Commission to prescribe qualifications and maximum hours of service of employees or to make rules relating to safety of operation and standards of equipment.

One exemption is transportation by motor vehicle by or for railroads, water carriers, or freight forwarders in the performance of transfer, collection, or delivery service in terminal areas. Such transportation is regulated as part of the railroad, water carrier, or freight forwarder service of which it is part.

¹⁷ *Motor Bus & Motor Truck Transportation*, 140 I.C.C. 685, 746 (1928).

¹⁸ *Coordination of Motor Transportation*, 182 I.C.C. 263, 386-387 (1932).

¹⁹ *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934).

A second group of exemptions covers carriers whose operations are local in nature. Included in this group are: school busses, taxicabs, hotel busses, trolley busses, and motor vehicles under the control of the Secretary of the Interior and used principally in transporting persons in or about national parks or monuments.

There is another group of exemptions put in at the behest of agricultural groups who were inclined to oppose regulation of motor transportation. These exemptions include: (1) motor vehicles owned and operated by a farmer and used in the transportation of his agricultural commodities and products thereof or in the transportation of his supplies to the farm; (2) motor vehicles controlled by a cooperative association as defined in the Agricultural Marketing Act; and (3) motor vehicles used exclusively in carrying livestock, fish, or agricultural commodities, not including manufactured products thereof.

It is doubtful if any real exemption is granted by listing motor vehicles owned and operated by farmers among the exemptions. Such vehicles are private carriers and are subject therefore only to the provisions relating to safety; and as we have noted, exempt carriers are not exempt from the safety provisions anyway. The exemption of motor carriers used exclusively in carrying livestock, fish, or agricultural commodities is a real exemption since it includes common and contract carriers which would otherwise be subject to the provisions of the Act. This exemption does not include carriers which haul agricultural products from farms and have a return load of nonagricultural products.

Another exemption consists of trucks engaged exclusively in the transportation of newspapers. This represents a concession to newspaper publishers, who were opposed to the enactment of the law if their trucking operations were to be included in its provisions.

An amendment to the Act in 1938 added another exemption, namely, motor vehicles used exclusively in the transportation of persons or property when incidental to transportation by aircraft.

In addition to these exemptions there are two qualified or conditional exemptions: (1) transportation "wholly within a municipality or between contiguous municipalities or within a zone adjacent to and commercially a part of any such municipality"; and (2) the "casual, occasional, or reciprocal transportation" for compensation by any person not engaged in transportation by motor vehicle as a regular occupation or business. To transportation falling in these two categories the provisions of the Act do not apply unless and to the extent that the Com-

mission finds regulation is necessary to carry out the policy of Congress. The second exemption is for the purpose of excluding unimportant transportation for hire. The exemption of transportation within a municipality, between contiguous municipalities, or in a zone adjacent to and commercially a part of a municipality is for the purpose of excluding purely local transportation which may be interstate in character because of the proximity of the cities to State boundaries.²⁰

TRANSPORTATION AGENCIES REGULATED

Part II of the Interstate Commerce Act deals with four types of transportation agencies by motor vehicle: (1) common carriers; (2) contract carriers; (3) private carriers; and (4) transportation brokers. The reader should be familiar already with the distinction between the first three classes of carriers. Transportation brokers are individuals or organizations which arrange with shippers for transportation service but own no vehicles themselves, and therefore arrange with others to perform the actual transportation service. An appropriate system of regulation is set up for each of these groups.

COMMON CARRIERS

As might be expected, the system of regulation that is provided for common carriers is the most complete. Its major provisions may be summarized as follows:

(1) The Commission may establish requirements concerning the qualifications of employees, maximum hours of service, safety of operation, and standards of equipment. These matters are all related to safety.

(2) The Commission may require reports of the carriers and may prescribe a uniform system of accounts.

(3) Carriers must obtain certificates of public convenience and necessity before engaging in business or extending their operations to additional routes. An appropriate "grandfather clause" accompanies this provision, which entitles carriers to a certificate as a matter of right who were in bona fide operation on June 1, 1935, and have operated continuously since that date. Certificates remain in effect indefinitely but

²⁰ For examples of cases in which the Commission has defined the boundaries of commercial zones see *New York, N.Y., Commercial Zone*, 1 M.C.C. 665 (1937); 2 M.C.C. 191 (1937); *Chicago, Ill., Commercial Zone*, 1 M.C.C. 673 (1937); *Philadelphia, Pa., Commercial Zone*, 17 M.C.C. 535 (1939). A general rule for determining commercial zones was announced in *Commercial Zones and Terminal Areas*, decided Nov. 26, 1946.

may be suspended or revoked for willful violation of the Act or of an order of the Commission.

(4) Consolidations, mergers, and other forms of control of motor carriers are made subject to Section 5 of Part I of the Act which formerly applied only to combinations of rail carriers. A consolidation, merger, or unification must be approved by the Commission as "consistent with the public interest." Exemption from the requirements of this section is provided when the total number of vehicles involved is not more than twenty. The purpose of this exemption is to simplify the Commission's task by confining its jurisdiction to the larger concerns where questions of public interest are more likely to be involved. Special requirements are set up to govern acquisitions of control of motor carriers by railroads.²¹ The Commission's approval of combinations and acquisitions of control carries with it relief from the anti-trust laws to the extent necessary to carry out the transaction.

(5) The issuance of securities by motor carriers is made subject to the provisions of Section 20a of Part I of the Interstate Commerce Act, but here again exception is made in favor of the small concerns. Only if the total volume of securities issued, or proposed to be issued, exceeds \$500,000 is the Commission's approval of new issues necessary.

(6) Surety bonds or insurance are required of all common carriers in such amounts as the Commission may require. Insurance protection may cover claims for loss or damage to shipments as well as injuries to, or damage to the property of, third parties. Self-insurance may be permitted under such rules as the Commission may prescribe.

(7) Rates and fares must be reasonable and nondiscriminatory.

(8) Publication of rates and fares is required, and there must be strict observance of tariffs.

(9) Notice of thirty days is required for changes in rates and fares.

(10) Proposed rates and fares may be suspended by the Commission for a period not exceeding seven months. The Commission, however, was not permitted to suspend the initial schedules of rates filed by the carriers when the Act became effective.

(11) The Commission has power to prescribe both maximum and minimum rates.

(12) The Commission has jurisdiction over the adequacy of service of motor carriers.

²¹ These requirements are discussed in Chapter XXXIV.

CONTRACT CARRIERS

The following provisions which are applicable to common carriers are equally applicable to contract carriers: those relating to safety matters; the prescription of accounts and reports; control over consolidations and acquisitions of control; and the authorization of security issues.

In addition, the following requirements are peculiar to contract carriers:

(1) Permits, rather than certificates of public convenience and necessity, must be obtained. The difference between a permit and certificate, as will be shown later, is not a difference in name only.

(2) Surety bonds or insurance are required of contract carriers to cover liability for death or injury to persons, or damage to property, arising from the operation of motor vehicles, but they may not be required to cover loss or damage to shipments.

(3) Contract carriers must file with the Commission and make public their schedules of minimum charges, and they may not charge less than the rates filed.

(4) Notice of thirty days must be given of any reduction in minimum rates.

(5) The Commission may prescribe minimum, but not maximum, charges of contract carriers.

The lesser requirements imposed upon contract carriers reflect the fact that they do not have the duties and obligations to the public which have long been imposed on common carriers. The theory of the Act is that contract carriers are to be regulated only so far as may be necessary to make common-carrier regulation effective, or to prevent contract carriers from unduly interfering with the business of common carriers.

PRIVATE CARRIERS

By "private carriers" the Act means the not-for-hire carriers, that is, those transporting goods for their own use or as an incident to their business or occupation. No regulation is provided for private carriers beyond the requirement that they are subject to such regulations as the Commission may prescribe regarding qualifications of and maximum hours of service of employees, safety of operation, and standards of equipment.

TRANSPORTATION BROKERS

Transportation brokers may not operate without a license from the Commission. The Commission may require accounts and reports and

may also prescribe rules and regulations to be observed by brokers for the protection of the public. Bonds or other security to insure financial responsibility are required.

JOINT BOARDS

A novel feature of Part II of the Act is its provision for obtaining the aid of State officials. The Act provides that if an application or complaint filed with the Commission involves not more than three States it shall be referred to a joint board consisting of a representative of the State commission of each State affected. Joint boards may be used at the discretion of the Commission in proceedings which involve more than three States. The members of joint boards are appointed by the Commission from nominees made by the State regulatory body or the Governor. A decision of a joint board becomes final if exceptions to its report are not made within twenty days after the service of the report upon the interested parties or if the Commission does not review the case. If exceptions are filed to the report of the joint board, the Commission must consider the same, and either upon the same record or upon the record as supplemented by further hearing make such order as may be appropriate.²²

Two reasons may be given for calling upon State officials in this manner to help administer a Federal law. In the first place, it relieves the Commission of much work. The number of applications and complaints under the Act has been very large and will continue to be so. It expedites the disposition of these cases to have them referred to joint boards. In the second place, the joint-board device is a means of decentralizing the administration of the Act and of placing responsibility for decision upon those closer to the matter involved. The operations of many interstate bus and truck operators are essentially local in nature.

DIFFERENCES BETWEEN RAILROAD AND MOTOR-CARRIER REGULATION

A comparison of the provisions of Part II of the Act with those of Part I reveals differences between the regulatory systems set up for motor carriers and for railroads. Certain of these differences should be mentioned

²² For discussions of joint boards, see Kauper, Paul G., "Utilization of State Commissioners in the Administration of the Federal Motor Carrier Act," 34 *Michigan Law Review* 37 (1935); Nelson, James C., "Joint-Board Procedure under the Motor Carrier Act," 13 *Journal of Land & Public Utility Economics* 97 (1937).

(1) The regulation of motor carriers is more complicated because of the existence of contract carriers, private carriers, and transportation brokers, in addition to the common carriers. Railroads are practically always common carriers; hence one system of regulation can be applied to all of them.

(2) Many motor carriers are exempt from regulation.

(3) The large number of small concerns in the motor-carrier field makes the partial exemption of small operators necessary if regulation is not to be too cumbersome. This, as we have seen, is the reason for the exemption of small carriers from the requirements concerning security issues and from those relating to consolidations and acquisitions of control.

(4) Part II of the Act contains provisions requiring motor carriers to obtain insurance or other liability protection. No such requirement is imposed on rail carriers. The reason for the difference is that many of the small motor carriers, of which there are thousands, are financially weak and sometimes unable to meet judgments against them; railroads are larger concerns and are ordinarily able to meet judgments which may be rendered against them by the courts.

(5) The Commission has no power to prevent the abandonment of operations by a motor carrier if the carrier desires to discontinue operations entirely.²³

(6) The Act does not require motor carriers of property to establish through routes and joint rates with other motor carriers,²⁴ although such through routes and joint rates may be voluntarily established.

(7) Motor carriers are not subject to a long-and-short-haul clause. This is not a discrimination against rail carriers in favor of motor carriers, as is sometimes alleged. The difference in treatment arises simply from the fact that long-and-short-haul discrimination has been a rare occurrence in the motor-carrier industry. The reason for this lies, of course, in the absence of a large mass of constant expenses in the motor-carrier business. If long-and-short-haul discrimination makes its appearance in the motor-carrier industry, there will be a demand, and justly so, for the enactment of a long-and-short-haul clause.

(8) The Interstate Commerce Commission is denied any power to control intrastate rates. It will be recalled that after the Minnesota and

²³ *Towns of Bristol & Hill, N.H. v. Boston & Maine Transportation Co.*, 20 M.C.C. 581 (1939).

²⁴ *Hausman Steel Co. v. Seaboard Freight Lines*, 32 M.C.C. 31 (1942).

Shreveport cases, in 1913 and 1914, the power of the Interstate Commerce Commission to change purely intrastate rail rates when necessary to remove discrimination against a point outside of the State was recognized by the courts.²⁵ The Transportation Act of 1920, furthermore, empowered the Commission to raise the general level of intrastate rail rates to the level of interstate rates when the former were so low as to amount to a discrimination against interstate commerce.²⁶ Part II of the Act contains no similar provision. In fact, it provides "that nothing in this part shall empower the Commission to prescribe, or in any manner regulate, the rate, fare, or charge for intrastate transportation . . . for the purpose of removing discrimination against interstate commerce or for any other purpose whatever." This prevents the application of the Shreveport doctrine to motor-carrier rates.

(9) Congress did not empower the Commission to award reparations to shippers for injury sustained as a result of rates found unreasonable or otherwise unlawful.²⁷

ADMINISTRATION OF THE ACT

Although Federal regulation of motor carriers dates back only to 1935 a large body of reported decisions has resulted, comprising about 46 volumes at time of writing. It is impossible in a volume like this to attempt a detailed analysis of the Commission's policy in administering the Act. Brief consideration, however, must be given to the more important developments that have occurred and to some of the important issues which have arisen in the administration of the Act.

ACCOUNTS AND REPORTS

The Commission has prescribed a uniform system of accounts for Class-I common and contract motor carriers, that is, for those having operating revenues of \$100,000 per year or more. Accounts have not been prescribed for Class-II and Class-III motor carriers. All Class-I motor carriers are also required to file reports of their operations with the Commission.

SAFETY

In the field of safety regulation the Commission has been active. The motor-carrier safety regulations of the Commission embrace:

²⁵ See pp. 281-282, *supra*.

²⁶ See p. 247, *supra*.

²⁷ *Bell Potato Chip Co. v. Aberdeen Truck Line*, 43 M.C.C. 337 (1944), and cases there cited. For the confused legal situation caused by this omission see Wagner, W. H., "Reparation in Motor Carrier Cases," 8 *I.C.C. Practitioners' Journal* 795 (1941).

qualifications of drivers, driving rules, parts and accessories of trucks, the reporting of accidents, maximum hours of service of drivers, requirements as to inspection and maintenance of motor vehicles, and the transportation of explosives and other dangerous articles. Safety regulations for common and contract carriers are more exacting than for private carriers, but regulations have been prescribed for private carriers.²⁸ The Commission has also prescribed rules and regulations governing the filing of surety bonds or policies of insurance as a means of protecting shippers and the public in whose behalf judgments may be rendered against the carriers.

CERTIFICATES AND PERMITS

A large portion of the work of the Commission in administering Part II of the Act has been to dispose of applications for certificates and permits. Applications under the "grandfather" clause since the enactment of the Motor Carrier Act have totaled more than 89,000, while more than 22,000 applications have been filed for new operating authority.²⁹

In disposing of applications for certificates and permits it is necessary to distinguish clearly between common and contract carriers, since the two classes of carriers are subject to different requirements under the statute. It is also necessary sometimes to determine whether an operator is a private carrier, and therefore exempt from any requirements for operating authority, or a carrier for hire. Both of these questions have involved difficulties.

WHAT IS A PRIVATE CARRIER?

Ordinarily there is little difficulty in identifying the private carrier, since he does not carry for hire but transports articles of which he is the owner. Mere ownership of the load, however, does not make one a private carrier under all circumstances. Some early cases came before the Commission in which the owner of a truck took orders for coal, purchased it at the mine, transported it to his customers, and charged them the mine price plus an amount as compensation for hauling. In these cases the Commission held that the trucker was a common carrier, since his main interest was in the transportation of the coal and in the

²⁸ See *Motor Carrier Safety Regulations—Private Carriers*, 23 M.C.C. 1 (1940), 26 M.C.C. 205 (1940).

²⁹ *Annual Report*, 1945, p. 87.

compensation which he received for this service.³⁰ Some cases have arisen in which it is difficult to determine whether the carrier is a private carrier or a carrier for hire.³¹

Although transportation by a corporation of its own property is private carriage and not subject to regulation, the performance of transportation service for compensation for a manufacturing corporation or affiliated companies by a wholly owned subsidiary is not private transportation, but transportation for hire.³²

CONTRACT CARRIER OR COMMON CARRIER

More difficult than distinguishing private carriers from common carriers is distinguishing between contract and common carriers. This has often bothered State commissions and has frequently resulted in litigation. Common carriers, as we have seen, sometimes attempt to avoid the duties and obligations of common carriers and the system of regulation set up to control them by insisting that they are really contract carriers.

It is not sufficient to say that a contract carrier is one who carries goods under contract. The bill of lading issued by a common carrier may be considered as a contract or as evidence of a contract between the shipper and carrier, but the use of a bill of lading does not make a carrier a contract carrier. The contracts of the latter must be of a different nature. The kind of contract which is required if one is to qualify as a contract carrier was described by the Commission as follows:

As we construe the act the special and individual contract or agreement contemplated must be one that has mutuality, that is, a contract whereby the shipper is obligated to furnish some definite or easily ascertainable minimum amount of freight during the term of the contract, or for a given period, and the carrier is bound to transport the freight agreed to be shipped, for the consideration specified in the contract or agreement.³³

In determining the status of a carrier, the Commission has said:

The essential consideration is the general character of his business and of his holding out to shippers.³⁴ . . . Does he confine his services to specially selected

³⁰ *Carpenter Common Carrier Application*, 2 M.C.C. 85 (1937); *Monninger Common Carrier Application*, 2 M.C.C. 501 (1937). Other commodities are sometimes handled in a similar manner. See *McBroom Contract Carrier Application*, 1 M.C.C. 425 (1937).

³¹ See *Williams Bros. Corp. Contract Carrier Application*, 44 M.C.C. 557 (1945), and *Woinishek Common Carrier Application*, 42 M.C.C. 193 (1943).

³² *Schenley Distillers Corp. v. United States*, 326 U.S. 432 (1946).

³³ *Western Transport Co. Contract Carrier Application*, 2 M.C.C. 107, 109 (1937).

³⁴ *Slagle Contract Carrier Application*, 2 M.C.C. 127, 134 (1937).

shippers, or does he, in substance and effect, offer his services, within the limits of his capacity, to shippers generally who desire such transportation as he undertakes to furnish? The number of shippers for whom a carrier performs transportation has a bearing on this matter, as has the character of the contracts under which the service is furnished. Neither is controlling, but both are to be considered, along with other evidentiary facts, in determining the general character of the business and nature of the undertaking.³⁵

In the last analysis the essential attribute distinguishing common carriage from contract carriage is the presence or absence of a holding out to serve the public generally. "Each case requiring a determination whether or not common carriage exists, when brought to its irreducible minimum, turns finally on the question whether or not a holding out to the public generally is shown."³⁶

Although the proper classification of a carrier is sometimes difficult, it is clear that the business of the typical contract carrier differs from that of the common carrier in several respects. The contract carrier serves a single patron or a very limited number. The contracts do not cover single shipments, but are contracts under which the carrier agrees to transport a series of shipments over a period of time. The service performed is usually of a specialized type adapted to the special needs of the particular shipper or shippers served.³⁷

"GRANDFATHER" CLAUSE CASES

Under the "grandfather" clause certificates or permits must be granted upon a showing of "bona fide" operation on the "critical" or "grandfather" date—June 1, 1935, in case of common carriers; July 1, 1935, in case of contract carriers—and continuously since, except for interruptions of service over which the carrier had no control. No proof of public convenience and necessity, or of consistency with the public interest is required under the "grandfather" clause. The object of the "grandfather" clause, of course, is to protect carriers who were already in operation at the time the Act was passed.

Lack of "bona fide" operation requires a denial of a certificate under the "grandfather" clause. The Supreme Court held in one case that a carrier is not in "bona fide" operation who operates "on public high-

³⁵ *Ibid.*

³⁶ *Craig Contract Carrier Application*, 31 M.C.C. 705, 708-709 (1941).

³⁷ One of the most complete discussions of the difference between common and contract carriers is in the *Craig* case.

ways of a State in defiance of its laws.”³⁸ The Commission, however, does not hold that every failure to comply with the requirements of State law destroys the bona fide character of a carrier’s operations, particularly if such violation was unintentional or if there was a general failure of State authorities to enforce the law.³⁹ This construction of the Act has had judicial approval.⁴⁰

Failure of a carrier to operate continuously since the “critical” date means the loss of any rights which might otherwise exist under the “grandfather” clause, unless the interruption of service was due to conditions beyond the carrier’s control. Washouts and unsafe highway conditions, which may cause interruption of service are beyond a carrier’s control and do not cause loss of “grandfather” rights.⁴¹ The Commission has held in one case, with five commissioners dissenting, that involuntary bankruptcy causing interruption of service was not beyond the carrier’s control and hence caused a loss of “grandfather” rights.⁴² The Supreme Court, with three justices dissenting, upheld the Commission on this point.⁴³

If the nature of a carrier’s operations has changed since the “critical” date, it will lose any rights which it would otherwise have had under the “grandfather” clause. If it has ceased to perform the operations performed on the “critical” date, it is not entitled to a certificate covering them; neither is it entitled to a certificate covering the kind of operations which it has instituted since the “critical” date.⁴⁴

It is natural that carriers applying for certificates under the “grandfather” clause should seek as broad and extensive operating authority thereunder as possible. It is within the spirit and intent of the Act, however, to hold such operating authority to the operations that were actually carried on by the applicant on the “grandfather” date and subsequent thereto.

The Commission has interpreted the Act rather strictly to prevent

³⁸ *McDonald v. Thompson*, 305 U.S. 263, 266 (1938). This case was followed by the Commission in *Futch Common Carrier Application*, 17 M.C.C. 605 (1939).

³⁹ See *Slagle Contract Carrier Application*, 2 M.C.C. 127 (1937); *Coleman Bros. Transfer Co. Common Carrier Application*, 10 M.C.C. 97 (1938); *Cushman Motor Delivery Co. Common Carrier Application*, 42 M.C.C. 155 (1943).

⁴⁰ *Alton R. R. Co. v. United States*, 315 U.S. 15, 24 (1942).

⁴¹ See *Cardinal Stage Lines Common Carrier Application*, 2 M.C.C. 583 (1937); *Edwards Motor Transit Co. Inc., Common Carrier Application*, 2 M.C.C. 73 (1937).

⁴² *Gregg Cartage & Storage Co. Common Carrier Application*, 21 M.C.C. 17 (1939).

⁴³ *Gregg Cartage Co. v. United States*, 316 U.S. 74 (1942).

⁴⁴ See *United States v. Maher*, 307 U.S. 148 (1939).

the granting of operating authority more extensive than that actually exercised on and after the "grandfather" date. In the case of regular-route common carriers, it is the practice to restrict the operating rights granted under the "grandfather" clause to the routes and to the points which the carrier has served.

Some difficulty has been encountered in connection with "grandfather" applications of irregular-route or anywhere-for-hire carriers. If they have held themselves out to transport over an extensive area but have actually transported to and from a limited number of points, should their operating rights under the "grandfather" clause be restricted to the points actually served or should they extend to other points? If a carrier has held himself out to transport general commodities, but has in fact transported only a limited number of commodities, should his operating authority embrace commodities generally or only those which he has actually carried? It can be seen that some restrictions may be necessary to prevent wide-open authorization way beyond the service which an irregular-route carrier has performed. On the other hand, it might be restricting unduly the operations of an anywhere-for-hire carrier to confine his operations to points to or from which he has actually transported goods.

The Commission has been upheld in restricting operating authority under the "grandfather" clause to areas or to points actually served.⁴⁵ The Commission may restrict authority to points within a specified territory or to designated points, depending upon the nature of the transportation service performed by the applicant. However, if the nature of the carrier's business is such as to require rather broad authorization, even to points not actually served in the past, such authorization may be granted. The Supreme Court in one case upheld the Commission, over the protest of railroads, in granting authority under the "grandfather" clause to a transporter of motor vehicles by the driveaway or caravanning method to serve all points within a State, although but few points had actually been served.⁴⁶ "While the test of 'bona fide operation' within a specified 'territory' includes 'actual rather than potential or simulated service,' it does not necessarily restrict future operations to the precise points or areas already served," said the Court. "The characteristics of the

⁴⁵ *Loving v. United States*, 32 F. Supp. 464 (1940). See also *United States v. Carolina Carriers Corp.*, 315 U.S. 475 (1942), where territorial restrictions of an irregular route operator were upheld.

⁴⁶ *Alton R. R. Co. v. United States*, 315 U.S. 15 (1942).

transportation service rendered may of necessity have made trips to any specified locality irregular or sporadic.”⁴⁷

Although the Commission has been upheld in imposing territorial restrictions on irregular-route operators, it received a setback in connection with certain commodity restrictions which it included in a certificate under the “grandfather” clause.⁴⁸ The Commission had confined the authority of an irregular-route operator to the transportation of certain commodities which it had previously handled, although the carrier had held itself out as a general carrier of freight. In the words of the Court, “. . . if the applicant has carried a wide variety of general commodities, he cannot necessarily be denied the right to carry others of the same class merely because he never carried them before.”⁴⁹ The Court went on to say: “The Commission may not atomize his prior service, product by product, so as to restrict the scope of his operations, where there is substantial evidence in addition to his holding out that he was in ‘*bona fide* operation’ as a ‘common carrier’ of a large group of commodities or of a whole class or classes of property.”⁵⁰

In granting permits under the “grandfather” clause to contract carriers the Commission has refused to limit such carriers to the service of particular shippers,⁵¹ but it commonly limits contract carriers to the same general class of shippers, such as retail food stores,⁵² chain department stores,⁵³ or packing houses.⁵⁴ This type of restriction is commonly known as a “Keystone” restriction, from the leading case which involved the Keystone Transportation Co.⁵⁵

Although a rather strict limitation of operating authority under the “grandfather” clause is doubtless necessary in order to prevent wholesale evasion of the requirement that public convenience and necessity or consistency with the public interest be shown in connection with new operations, these limitations and restrictions undoubtedly interfere with efficient operation of motor carriers. Commodity restrictions, although less likely to be as important a factor in the future as before

⁴⁷ *Ibid.*, p. 21.

⁴⁸ *United States v. Carolina Freight Carriers Corp.*, 315 U.S. 475 (1942), and the companion case, *Howard Hall Co. v. United States*, 315 U.S. 495 (1942).

⁴⁹ 315 U.S. 475, 483.

⁵⁰ *Ibid.*, pp. 483-484.

⁵¹ *Motor Convoy, Inc., Contract Carrier Application*, 2 M.C.C. 197 (1937).

⁵² *Keystone Transportation Co. Contract Carrier Application*, 19 M.C.C. 475 (1939).

⁵³ *Koelker Contract Carrier Application*, 22 M.C.C. 474 (1940).

⁵⁴ *Clancy Common Carrier Application*, 24 M.C.C. 727 (1940).

⁵⁵ See footnote 52.

the decision of the Supreme Court in the Carolina Freight Carrier case, may interfere with efficient operation of a particular carrier. Regular-route common carriers are sometimes compelled by these restrictions to operate over circuitous routes and are barred from more direct routes. Others may not be authorized to serve intermediate points on their routes, while others may be authorized to carry traffic to, from, or between intermediate points, but not between their termini. Some carriers may carry traffic in one direction but have no authority to transport return loads. The Keystone restriction, by confining contract carriers to the service of a particular class of customers, may prevent an economical expansion of a carrier's business.⁵⁶ These situations are the inevitable result of restricting operating authority under the "grandfather" clause to services rendered on the "grandfather" date and continuously since. They would be difficult to justify if an effort were being made to promote the most economical organization of the industry. Carriers may sometimes overcome the effect of these restrictions by purchasing the operating rights of others or by seeking an expansion of their operating authority under other provisions of the Act. In the latter case, however, difficulty may be encountered, since public convenience and necessity would have to be shown for the additional service if the carrier is a common carrier, and consistency with the public interest would have to be shown if the carrier is a contract carrier. This is particularly difficult to do when the additional operating authority sought would encroach upon the vested interests of other operators having "grandfather" rights in the territory or between the points involved.

The Board of Investigation and Research recommended in 1944 that the Act be amended to liberalize operating restrictions upon motor carriers. It specifically advocated that commodity restrictions be limited to carriers whose service is of such a specialized nature as to be unsuited to the transportation of general commodities; that route restrictions which require unnecessary circuitous movement or movement through congested areas be eliminated from all certificates and permits; that authorizations which prevent common and contract carriers from rendering service to and from all points within their authorized territories, and at points through which their vehicles pass, be abolished; and that certain other restrictions be removed.⁵⁷ The Interstate Commerce Com-

⁵⁶ For a detailed study of the effects of operating restrictions growing out of the administration of the Act see Board of Investigation & Research. *Federal Regulatory Restrictions Upon Motor and Water Carriers*, 79th Cong., 1st sess., Senate Doc. No. 78 (1945).

⁵⁷ *Ibid.*, p. 1.

mission has given some attention to the problem also. In its annual report for 1944 the Commission pointed out that it had been engaged in a study of the limited operating authorities "with the view to taking such action as might be necessary to permit better integrated and more efficient and economical operations by such carriers."⁵⁸

CERTIFICATES AND PERMITS FOR NEW OPERATING AUTHORITY

The statute provides that certificates for new common-carrier operations be granted to an applicant "if it is found that the applicant is fit, willing, and able properly to perform the service proposed and to conform to the provisions of this part and the requirements, rules, and regulations of the Commission thereunder, and that the proposed service . . . is or will be required by the present or future public convenience and necessity." Permits to contract carriers are to be granted "if it appears . . . that the applicant is fit, willing, and able properly to perform the service of a contract carrier by motor vehicle, and to conform to the provisions of this part and the lawful requirements, rules, and regulations of the Commission thereunder, and that the proposed operation . . . will be consistent with the public interest and the policy declared in this act."

It will be noted that a certificate for common-carrier service may not be issued except upon a showing that the proposed service will be *required* by "public convenience and necessity." The Commission has pointed out that the word "necessity" must be liberally construed, "for there are comparatively few things in life which can be regarded as an absolute 'necessity,' and it was surely not the intent of Congress to use the word in so strict and narrow a sense."⁵⁹ It is apparent, however, that an affirmative showing must be made that the proposed service "will serve a useful public purpose, responsive to a public demand or need."⁶⁰ A permit for contract-carrier operations, it would appear, can be more easily obtained since a showing of public convenience and necessity is not required, but only that the proposed operations will be consistent with the public interest and the national transportation policy. Such is the view of the Commission. "The language of the statute makes it quite clear, we think, that the requirements for the issuance of a permit are not as exacting as those governing the issuance of a certificate."⁶¹

⁵⁸ *Annual Report, 1944*, pp. 21-22.

⁵⁹ *Pan-American Bus Lines Operation*, 1 M.C.C. 190, 202 (1936).

⁶⁰ *Ibid.*, p. 203.

⁶¹ *Bassetti & Lawson Contract Carrier Application*, 1 M.C.C. 187, 189 (1936).

PROTECTION OF EXISTING CARRIERS

One of the most important questions arising in the administration of the Act is the extent to which existing motor carriers should be protected from new competition. Obviously, any limitation on the freedom of entry into the motor-carrier field operates to protect those already in the field from additional competition. If unlimited freedom to enter the business had been considered desirable by Congress, no certificate requirements would have been set up. The Commission has recognized an obligation to protect existing carriers. In an early case the Commission said: "... the maintenance of sound economic conditions in the motor-carrier industry would be jeopardized by allowing new operators to enter a field in competition with existing carriers who are furnishing adequate, efficient, and economical service."⁶² In a more recent case the Commission said: "We have constantly adhered to the view that existing carriers should normally be accorded the right to transport all traffic which they can handle adequately, efficiently, and economically, in the territory served by them."⁶³

It is clear, however, from an examination of cases in which certificates are sought, that if the operations of the applicant will provide a better or more suitable service than is provided by existing carriers, whether rail or motor, the Commission will not hesitate to authorize competitive service, notwithstanding the adverse effect it may have on existing carriers.⁶⁴ The same considerations are important in granting permits to contract carriers over the protest of rail carriers or motor common carriers.⁶⁵

MONOPOLY VERSUS COMPETITION

Although the Commission does not hesitate to deny certificates or permits when it considers that existing service is adequate, the Commission is far from favoring monopoly over particular routes or in a particular territory. On many occasions the Commission, in authorizing new competitive services, has spoken out in behalf of the maintenance

⁶² *Clark Common Carrier Application*, 1 M.C.C. 445 (1937) citing *C. & D. Oil Co. Contract Carrier Application*, 1 M.C.C. 329 (1936).

⁶³ *Clark-Callaban, Inc., Common Carrier Application*, 41 M.C.C. 693, 706 (1943).

⁶⁴ E.g., *Western Auto Shippers Extension of Operations*, 3 M.C.C. 173, 176 (1937); *Bowles Common Carrier Application*, 1 M.C.C. 589, 591 (1937); *Locke Common Carrier Application*, 2 M.C.C. 599 (1937).

⁶⁵ E.g., *Alvord Contract Carrier Applications*, 2 M.C.C. 379, 381 (1937); *Perry Extension of Operations*, 2 M.C.C. 70 (1937); *Waugh Contract Carrier Application*, 2 M.C.C. 343 (1937).

of competition among motor carriers. In one case the Commission said: "Public regulation can enforce what may be called reasonable standards of safe, continuous, and adequate service, but it can hardly be expected to take the initiative in experimentation and the development of new types of service . . . Competition is the best-known spur to such endeavor and we are not persuaded that Congress intended to eliminate it in the motor-bus field any more than in the railroad field."⁶⁶ So important does the Commission consider competition to be that it sometimes authorizes additional motor-carrier service where competition is absent, even though existing service might not be considered inadequate. "It must be accepted . . . that an additional service may be required in the public interest even though an existing operator is supplying in quantum what appears to be a sufficient service, where there is lacking any worthy competitor of such operator in its own field and where the available business is ample to support another operation."⁶⁷ This policy therefore modifies the policy of protecting existing operators from new competition.

FOR-HIRE SERVICE BY PRIVATE CARRIERS

The Commission has been inclined to deny certificates and permits to private carriers who desire to engage to some extent in for-hire operations. The principle was established in *Geraci Contract Carrier Application*.⁶⁸ The Commission there explained why it considered it objectionable to mix contract and private carriage. "If private carriers generally were permitted to engage in contract-carrier operations in the manner here proposed, it is clear that the results might seriously affect the maintenance of adequate and efficient service by the motor common carriers upon whom the general public must depend, and by the contract carriers who do not also engage in private carriage."⁶⁹ The Geraci case involved contract-carrier operations by a private carrier, but the principle has also been applied to proposed common-carrier operations by private carriers.⁷⁰ The principle of the Geraci case has been followed in many cases, but there are exceptions. Particularly where the for-hire services proposed were not competitive with regular

⁶⁶ *Pan-American Bus Lines Operation*, 1 M.C.C. 190, 208 (1936). The same thought is expressed in different words in *West Coast Bus Lines Common Carrier Application*, 41 M.C.C. 269, 288 (1942).

⁶⁷ *Santa Fe Trail Stages, Inc., Common Carrier Application*, 21 M.C.C. 725, 749 (1940).

⁶⁸ 7 M.C.C. 369 (1938).

⁶⁹ *Ibid.*, p. 372.

⁷⁰ *Bales Common Carrier Application*, 9 M.C.C. 709 (1938).

for-hire carriers, or where no adverse effects on common-carrier operations would result, the Commission has authorized private carriers to engage in for-hire operations.⁷¹

DUAL OPERATION

The Act specifically provides that a carrier shall not hold a certificate as a common carrier and also a permit as a contract carrier. This prohibition of dual operation, however, is not absolute, as the Commission may "for good cause shown" grant both a certificate and a permit to the same carrier.

The objection to dual operation, which prompted the legislation against it, is that the mixture of the two kinds of business makes discrimination among shippers very easy. Some shippers might be charged common-carrier rates; others might, by reason of special contracts, receive substantially the same service at lower rates. The cases in which dual operation as both a common and contract carrier have been authorized represent situations in which the two services were so different as to be noncompetitive or were between different points or in different areas, and hence there was little possibility that discrimination could arise.⁷²

COMBINATIONS AND CONSOLIDATIONS

Consolidations of motor carriers and all forms of unification or acquisition of control come under the provisions of Section 5 of Part I of the Act, as previously noted, if more than twenty vehicles are involved. Actually the Commission's control over combinations is not limited to cases involving more than twenty vehicles, since Section 212 (b) of the Act gives the Commission power to prescribe rules governing the transfer of certificates and permits, and the Commission has promulgated a rule requiring its approval of the transfer of any operating rights.⁷³

In its annual report for 1942 the Commission commented on the tendency for motor carriers to combine. Although 1,785 applications had been filed with the Commission for authority to combine in one

⁷¹ E.g., *Zeisloft Common Carrier Application*, 12 M.C.C. 13 (1938); *Villaume Contract Carrier Application*, 30 M.C.C. 92 (1941).

⁷² E.g., *McCormick's Express, Inc., Common Carrier Application*, 12 M.C.C. 632 (1938); *Klann Moving & Trucking Co. Contract Carrier Application*, 29 M.C.C. 409 (1941); *Howard & McDonnell Common Carrier Application*, 33 M.C.C. 275 (1942).

⁷³ See *United States v. Redler*, 313 U.S. 57 (1941).

manner or another up to September 30, 1942,⁷⁴ and the Commission had granted 1,295 of these applications,⁷⁵ the trucking industry, as pointed out in the preceding chapter, is still characterized by a large number of small operators. The largest unification of motor carriers of property that has been approved by the Commission occurred as a result of the Associated Transport case involving eight large trucking firms operating principally along the Atlantic seaboard.⁷⁶

The most important issue that is likely to arise in consolidation cases is the elimination of competition. The Commission gives this factor consideration, but it is not controlling, since the disadvantage to the public of eliminating competition might be offset, wholly or in part, by various advantages, such as the possibility of more economical operation and better service.

The issue of competition versus monopoly in motor-carrier unification cases was clearly presented in the Associated Transport case referred to above. The Commission authorized Associated Transport, Inc. to acquire control of the several carriers even though there would be no other motor carrier of similar size to compete with it throughout the same area. The Commission found, however, that there would remain ample competitive service throughout the territory involved and that one or more rail carriers would offer substantial competition at all principal points. The Commission also found that the consolidation would result in improved service. The Commission's order was upheld by the Supreme Court,⁷⁷ against the contention that it should be set aside on the grounds that the Commission had failed to give consideration to the policy of the anti-trust laws in authorizing the unification. It is obvious that Congress would not have made consolidations approved by the Commission exempt from the Sherman Anti-Trust Act if the Commission could not authorize combinations that might run counter to the Sherman Act. There can be little doubt, said the Court in upholding the Commission, "that the Commission is not to measure proposals for all-rail or all-motor consolidations by the standards of the anti-trust laws."⁷⁸ On the other hand, the Court held that Congress had not authorized the Commission, in passing on a proposed merger, to

⁷⁴ This number does not include applications for transfer of operating authority under Section 212 (b).

⁷⁵ *Annual Report, 1942*, p. 30.

⁷⁶ *Associated Transport, Inc.—Control & Consolidation*, 38 M.C.C. 137 (1942).

⁷⁷ *McLean Trucking Co. v. United States*, 321 U.S. 67 (1944).

⁷⁸ *Ibid.*, pp. 84-85.

ignore the policy of the anti-trust laws. The task before the Commission apparently is to weigh the advantages of preserving competition between independent carriers and the advantages of improved service, lower costs, and the like, which may result from a particular consolidation.⁷⁹ This, we believe, is what the Commission would do as a common-sense matter, even if it were not legally required to recognize the policy of the anti-trust laws. There may be some advantage, however, in establishing the principle that the Commission is under compulsion to recognize public policy as it has found expression in the anti-trust laws.

In addition to being concerned with the issue of monopoly versus competition in consolidation cases, the Commission is interested in preventing unsound methods of financing consolidations. The Commission may, and will, deny applications to combine when it finds that the methods of financing are objectionable or that the price to be paid for the properties of a carrier is excessive.⁸⁰

AMORTIZATION OF INTANGIBLES

Consolidations and acquisitions of control, and applications for the transfer of operating rights, give rise to a problem that is related both to accounting regulation and to financial regulation. Very frequently substantial sums are paid for operating rights of another carrier, or the terms and conditions of a unification agreement may involve the payment of sums in excess of the value of the physical property acquired. The Act provides that the value of a certificate under which a motor carrier is operating, good will, and earning power may not be used as an element of value in determining the value of a carrier's property in any proceeding to determine the reasonableness of rates.⁸¹ Under the circumstances, the Commission does not consider that amounts paid for operating rights or amounts paid by one carrier for the property of another in excess of the value of the physical property should be permanently retained in the acquiring carrier's investment accounts. The Commission has therefore followed the policy, in unification cases, of requiring such amounts to be written off immediately by a charge to "Surplus," where the surplus account is sufficient, or to amortize these amounts over a period of years by charges against income.⁸²

⁷⁹ *Ibid.*, p. 87.

⁸⁰ E.g., *Transport Co.—Control—Arrow Carrier Corp.*, 36 M.C.C. 61 (1940); *Carolina Inter-City Coach Co.—Control—Carolina Coach Co.*, 40 M.C.C. 363 (1945).

⁸¹ Section 216 (h).

⁸² See *Skeel—Purchase—Jess Kubns & Grays Harbor Lines, Inc.*, 40 M.C.C. 318 (1945), and cases there cited.

RATE-LEVEL CASES

Section 216 (f) of Part II of the Act is a rule of rate making which is comparable to Section 15a of Part I. In fact, Section 216 (f) follows closely the language of Section 15a. It therefore requires consideration of the revenue needs of the carriers in prescribing motor-carrier rates.

Rate-level or revenue cases may arise in the motor-carrier field as well as in the railroad field. Two such cases arose as a result of circumstances brought about by World War II. These cases are *Increased Common Carrier Truck Rates in the East*⁸³ and *Increased Common Carrier Truck Rates in New England*.⁸⁴ In both cases an increase of 4 percent in rates was authorized because of the need of the carriers for increased revenues.

It is interesting to note whether the Commission has applied the fair-return-on-fair-value rule in motor-carrier cases. In the Eastern case, mentioned above, the carriers argued that the motor-carrier industry was primarily a service industry in that the value of the operating property was only 15 to 20 percent of the annual gross revenues. They urged that no attempt be made to fix a rate of return on the value of the operating property. The Commission said little about this contention but made no attempt to apply a strict fair-return-on-fair-value rule. It made use of the operating ratio as a convenient way of determining the extent to which total expenses of the carriers were less or greater than operating revenues. An operating ratio of 93 was considered reasonable. The Commission thus proceeded on the principle that operating revenues should exceed operating expenses by a safe margin rather than by the precise amount that might be necessary to constitute a "fair return" on investment or value. The same method was used in the New England case.

In addition to the two rate-level cases mentioned above, certain other cases which have come before the Commission may be considered as substantially rate-level cases because the decisions turned on the revenue needs of the industry. The cases referred to are five cases in which the Commission deemed it necessary to prescribe minimum rates for motor carriers on a territory-wide basis in order to stop what appeared to be excessive rate cutting and ruinous competition.⁸⁵ The

⁸³ 42 M.C.C. 633 (1943).

⁸⁴ 43 M.C.C. 13 (1943).

⁸⁵ *Middle Atlantic States Motor Carrier Rates*, 4 M.C.C. 68 (1937); *Central Territory Motor Carrier Rates*, 8 M.C.C. 233 (1938); *New England Motor Carrier Rates*, 8 M.C.C.

action of the Commission in these cases aroused the suspicions of those who had feared that motor-carrier regulation would deprive the public of the benefits of low-cost transportation. The Commission felt that the situation was one of emergency and disclaimed any intention of freezing the rates at their prevailing levels. The language of the Commission in the case involving the motor carriers in the Middle Atlantic States reveals the situation as it appeared to the Commission. "The record shows plainly that the motor carriers here concerned found themselves in a competitive struggle which was undermining their rates and depleting their revenues at a time when costs of operation were rising rapidly. Their reserves, to the extent that they had any, were nearing exhaustion and financial ruin loomed ahead."⁸⁶ Minimum rates were prescribed in these cases to prevent further rate cutting and to preserve the revenues of the motor carriers.

INEQUALITY OF EARNING POWER

We have found that in the regulation of the general level of railroad rates difficulty has been encountered because of the inequality in the earning power of different railroads.⁸⁷ The same problem is encountered in the regulation of motor-carrier rates on a territory-wide basis. In *Increased Common Carrier Rates in the East*,⁸⁸ referred to above, the Commission noted the wide range in the operating ratios of the carriers and pointed out that some carriers were earning substantial profits and some were operating at a loss. The Commission pointed out that rates could not be raised sufficiently to give all of the carriers adequate revenues. It pointed out that if that were possible in light of competitive conditions most of the carriers would earn excessive profits. The Commission dealt with the carriers as a whole and said that the carriers with operating ratios substantially higher than the others had the right to propose higher rates if such would improve their earnings.⁸⁹ In the New England case the same situation appeared. The Commission again called attention to the necessity of dealing with the carriers as a whole, and added: "It is inevitable that any general increase, determined upon a consideration of average conditions, benefits some which are not in

287 (1938); *Trunk Line Territory Motor Carrier Rates*, 24 M.C.C. 501 (1940); *Midwestern Motor Carrier Rates*, 27 M.C.C. 297 (1941).

⁸⁶ 4 M.C.C. 68, 77.

⁸⁷ See Chapter XVII on the weak-and-strong-road problem.

⁸⁸ 42 M.C.C. 633 (1943).

⁸⁹ *Ibid.*, p. 648.

need of improved net revenues and fails to render profitable the operations of all respondents.⁹⁰

REASONABLENESS OF RATES ON PARTICULAR COMMODITIES AND HAULS

The same general principles are followed by the Commission in determining the reasonableness and lawfulness of motor-carrier rates on particular commodities and hauls as have long been followed in determining the reasonableness and lawfulness of railroad rates. This statement does not mean, however, that the Commission disregards such special characteristics of the motor-carrier industry as may require or justify different rate practices and different rate levels, although it is likely that the initial action of the carriers in adopting railroad rates to a considerable extent has resulted in many rates that would be difficult to justify from a consideration of motor-carrier costs. It is quite possible that as time goes on motor-carrier rates will be brought more into conformity with motor-carrier costs.

There is some evidence that the Commission has placed more emphasis on fully allocated costs in prescribing minimum rates for motor carriers than has been the practice in dealing with railroad rates.⁹¹ Such a policy would seem justified in view of the fact previously pointed out that motor-carrier costs are mostly variable and that fixed costs are comparatively unimportant, thus leaving little room for rates that depart very much from fully allocated costs.

RELATION BETWEEN COMMON AND CONTRACT CARRIERS

The competitive relation between common and contract carriers gives rise to conflicts which regulatory commissions must resolve. Two types of cases involve this issue: those in which common carriers by motor vehicle oppose the granting of permits to contract carriers; and those in which the controversy is over the rates of contract carriers as compared with common carriers.

Although contract carriers are often granted permits over the opposition of common carriers, the latter do receive some protection under the Act. In fact, the Commission has pointed out that the only object in regulating contract carriers is to protect common-carrier

⁹⁰ 43 M.C.C. 13, 17-18 (1943).

⁹¹ See Locklin, D. P., "Rates and Rate Structure," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), particularly pp. 110-114.

service. In the words of the Commission: "The underlying purpose is plainly to promote and protect adequate and efficient common-carrier service by motor vehicle in the public interest, and the regulation of contract carriers is designed and confined with that end in view."⁹² Common carriers by motor vehicle frequently object to the granting of permits to contract carriers and complain that the contract carrier will take most of the truckload traffic, perhaps leaving only the less profitable small-package business for the common carriers.⁹³ In one case the Commission said: "There is force in this protestant's view that common carriers, since they undertake to serve the general public, should be protected against contract carriers who take the cream of the traffic and thus make it difficult for the common carriers to continue their broader operations."⁹⁴ On the other hand, it is recognized by the Act and by the Commission that contract carriers have a place in the transportation scheme.⁹⁵ And although permits may be denied in order to protect common carriers by truck, the Commission will not do this if it can be shown that the contract-carrier service is superior. Greater speed of delivery is often cited in justification of contract-carrier service which common carriers may be opposing.⁹⁶ Inability of common carriers by truck to provide deliveries to off-route destinations may be a factor in justifying a contract-carrier service.⁹⁷ In many cases permits are granted because the contract-carrier service is peculiarly adapted to the needs of the industry or industries served, sometimes taking the place of private carriage by the industry itself.⁹⁸

It is sometimes urged that contract carriers should be required to charge rates no lower than are charged by common carriers. The Texas statute regulating motor carriers which was upheld in *Stephenson v. Binford*⁹⁹ required this. That contract carriers charge common-carrier rates was also required by the Department of Public Works of the State of Washington.¹⁰⁰ The Minnesota and North Dakota commissions do

⁹² *Contracts of Contract Carriers*, 1 M.C.C. 628, 629 (1937).

⁹³ *S.D.G. Dress Delivery, Inc., Contract Carrier Application*, 1 M.C.C. 748, 749 (1937).

⁹⁴ *Gollock Application for Extension of Operations*, 1 M.C.C. 161, 165 (1936).

⁹⁵ *Ibid.*

⁹⁶ *Alword Contract Carrier Application*, 2 M.C.C. 379, 381 (1937); *Calloway Contract Carrier Application*, 2 M.C.C. 122, 126 (1937); *Vedder Oil Co., Inc., Contract Carrier Application*, 1 M.C.C. 757, 759 (1937).

⁹⁷ *Perry Extension of Operations*, 2 M.C.C. 70, 72 (1937).

⁹⁸ *S.D.G. Dress Delivery, Inc., Contract Carrier Application*, 1 M.C.C. 748 (1937); *Wauagh Contract Carrier Application*, 2 M.C.C. 343 (1937).

⁹⁹ See p. 705, *supra*.

¹⁰⁰ See *Prater v. Department of Public Works*, 60 Pac. (2d) 238, 239 (1936).

not permit contract carriers to maintain intrastate rates lower than the corresponding common-carrier rates.¹⁰¹

The Interstate Commerce Commission has followed no such policy. To require contract carriers to charge common-carrier rates would be inconsistent with the Declaration of Policy found in the amended Interstate Commerce Act,¹⁰² and with other provisions of the Act. Contract carriers can frequently transport at lower costs than common carriers. Recognition of the inherent advantages of contract-carrier transportation would therefore seem to require that they be allowed to charge lower rates than common carriers. The Commission's policy on this issue was established in 1944.¹⁰³

REGULATION TO PROTECT OTHER MODES OF TRANSPORTATION

One of the fears of those who opposed the enactment of the Motor Carrier Act in 1935 was that it would result in suppression of motor transportation in the interest of protecting rail carriers. The fact that railroads were strong advocates of motor-carrier regulation strengthened the suspicions of those who considered it a measure designed to aid the railroads. Congress, however, was careful to include provisions in the Act which would prevent the regulation of motor carriers primarily for the benefit of railroads. This problem is discussed more fully in a later chapter.¹⁰⁴ Suffice it to say at this point that the Interstate Commerce Commission has attempted to carry out both the letter and the spirit of the Act and has not attempted to restrict motor transportation in an effort to protect the railroads.

CRITICISM OF MOTOR-CARRIER REGULATION

The purpose of this chapter has been to describe motor-carrier regulation as it has developed and to determine how specific problems of regulation have been met. In so doing, an effort has been made to explain the reasons for the statutory provisions, and the reasons for some important policies that have been adopted by the Interstate Commerce Commission in the administration of the Act. It is natural that the Act and its administration should have been subjected to some criticism, as well as that regulation as a whole should be attacked.

¹⁰¹ *Minnesota-North Dakota Motor Carrier Rates*, 43 M.C.C. 289, 303 (1944).

¹⁰² See p. 269, *supra*.

¹⁰³ *New England Motor Rate Bureau, Inc. v. Lewers & McCauley*, 30 M.C.C. 651 (1941). See also *Minnesota-North Dakota Motor Carrier Rates*, 43 M.C.C. 289 (1944).

¹⁰⁴ Chapter XXXIV.

Appraisal of the effects of motor-carrier regulation is very difficult, particularly in view of the fact that just what would have occurred in the industry in the absence of regulation cannot be known. The strongest criticism of motor-carrier regulation is based on a belief that greater scope should be allowed for the operation of freely competitive forces in the industry and that such controls as restriction of entry into the industry and minimum-rate regulation should therefore be abandoned.¹⁰⁵ Time may reveal many desirable modifications of the regulatory policy embodied in Part II of the Interstate Commerce Act, but it is very doubtful if the country wants to return to the situation which prevailed before the enactment of the Motor Carrier Act of 1935, or that an abandonment of governmental controls in favor of a policy of noninterference in the industry would produce satisfactory results for the public.

SELECTED REFERENCES

Regulation of highway transportation is discussed in S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), ch. XXXIV; Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XXXII; Emory R. Johnson, *Government Regulation of Transportation* (New York, Appleton-Century, 1938), chs. XXI and XXII; Emory R. Johnson, Grover G. Huebner, and G. Lloyd Wilson, *Transportation: Economic Principles and Practices* (New York, Appleton-Century, 1940), chs. 49 and 50.

Much material relating to motor-carrier regulation is in the Federal Coordinator's report, *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), particularly pp. 13-35, 45-49; and Appendix B.

Good descriptions of the Motor Carrier Act of 1935 are James C. Nelson, "The Motor Act of 1935," 44 *Journal of Political Economy* 464 (1936); John J. George, "The Federal Motor Carrier Act of 1935," 21 *Cornell Law Quarterly* 249 (1936); Edw. A. Haid, "Regulation of Motor Carriers," 23 *Washington University Law Quarterly* 1 (1937). See also Parker McColester and Frank J. Clark, *Federal Motor Carrier Regulation* (New York, Traffic Publishing Co., 1935). For the legislative history of the Act see Warren H. Wagner, *A Legislative History of the Motor Carrier Act, 1935* (Denton, Md., 1935).

For a discussion of various aspects of the administration of Part II of the Interstate Commerce Act see the following: J. G. Scott, "Motor Carrier Regulation," 8 *I.C.C. Practitioners' Journal* 103 (1940); James C. Nelson, "Joint-Board Procedure under the Motor Carrier Act," 13 *Journal of Land & Public Utility Economics* 97 (1937); W. H. Wagner, "Common, Contract, and Private Motor Carriers Defined and Distinguished," 9 *I.C.C. Practitioners' Journal* 119 (1941); John J. George and J. R. Boldt, Jr., "Certification of Motor Common Carriers by

¹⁰⁵ See Nelson, James C., "New Concepts in Transportation Regulation," in National Resources Planning Board, *Transportation & National Policy* (Washington, Government Printing Office, 1942), particularly pp. 216-237.

the Interstate Commerce Commission," 17 *Journal of Land & Public Utility Economics* 82 and 196 (1941); R. B. Hankins, "Bona Fide Operation of Motor Carriers under the Grandfather Clauses," 6 *George Washington Law Review* 93 (1937); John J. George, "Authorization of Contract Motor Carriers by the Interstate Commerce Commission," 26 *Cornell Law Quarterly* 621 (1941); Board of Investigation and Research, *Federal Regulatory Restrictions upon Motor & Water Carriers*, 79th Cong., 1st sess., Senate Doc. No. 78 (1945); J. F. Meck and R. W. Bogue, "Federal Regulation of Motor Carrier Unification," 50 *Yale Law Journal* 1376 (1941); Erle J. Zoll, Jr., "The Regulation of Motor Carrier Rates by the Interstate Commerce Commission," 8 *I.C.C. Practitioners' Journal* 451 and 579 (1941).

For a critical discussion of the effects of motor-carrier regulation see James C. Nelson, "New Concepts in Transportation Regulation," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 197-237.

CHAPTER XXX

WATER TRANSPORTATION

IN DESCRIBING domestic water transportation in the United States it is necessary to distinguish between coastwise and intercoastal shipping, on the one hand, and transportation over inland waterways and the Great Lakes, on the other.

COASTWISE AND INTERCOASTAL TRANSPORTATION

The term "coastwise transportation" refers to transportation along the seacoast, i.e., between the various Atlantic ports, or the Gulf ports, or the Pacific Coast ports, or between the Gulf and Atlantic ports. Transportation between the Pacific Coast and the Atlantic or Gulf ports is known as "intercoastal transportation."

Coastwise and intercoastal traffic moves through 259 ports, of which 150 are on the Atlantic, 30 on the Gulf of Mexico, and 79 on the Pacific. The traffic is concentrated, however, at 26 ports, through which 88 percent of the receipts and 70 percent of the shipments were handled in 1939.¹ Figure 51 shows the principal ports served by coastwise and intercoastal carriers.

In 1940 there were 629 vessels engaged in coastwise commerce. These consisted of 59 combination passenger and freight vessels, 271 dry-cargo freight vessels, and 299 tankers.² In 1939 the volume of coastwise shipping aggregated 142,318,000 tons,³ which was equal to about 15 percent of the tonnage originated by our railroads in that year.

Engaged in the intercoastal trade in 1940 were 113 dry-cargo freighters and 12 tankers.⁴ The volume of intercoastal traffic as measured by the domestic traffic moving through the Panama Canal was 8,640,000 tons in 1940.⁵

Petroleum and its products constituted 71.8 percent of the coastwise traffic in 1939; coal and coke comprised 13.3 percent. All other commodities constituted less than 15 percent of the total.⁶ Intercoastal

¹ National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 47-48.

² *Ibid.*, p. 49.

³ *Ibid.*

⁴ *Ibid.*, p. 50.

⁵ *Ibid.*

⁶ *Ibid.*, p. 369.

traffic differs somewhat from the coastwise traffic in its composition, consisting in 1939 of 21.8 percent lumber, 15.6 percent petroleum and its products, 13.6 percent iron and steel and manufactures thereof, and 11.2 percent fruits and vegetables. No other single commodity comprised as much as 4 percent of the total intercoastal traffic.⁷

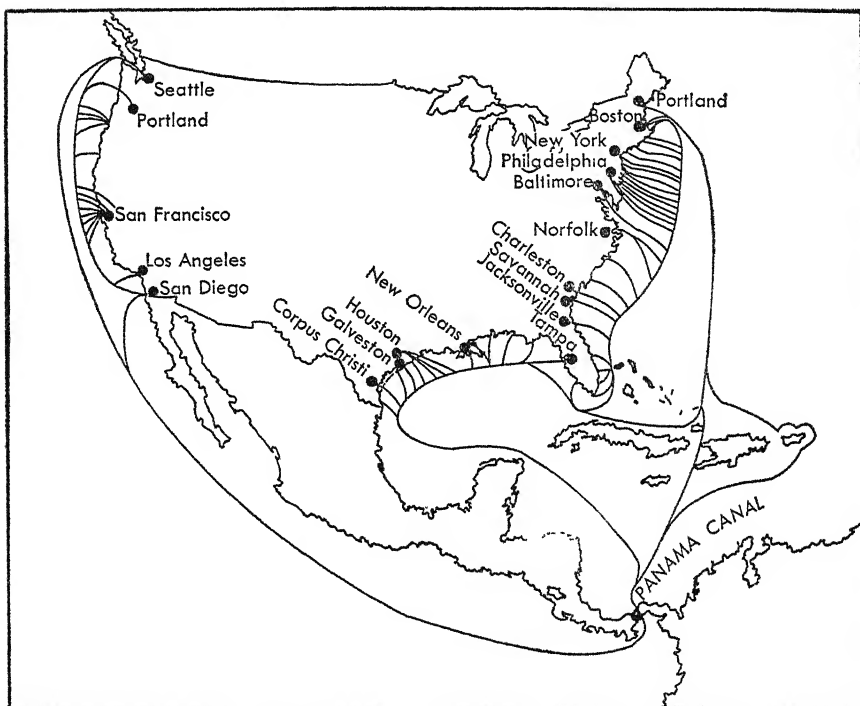


FIG. 51.—Principal Ports Served by Coastwise and Intercoastal Carriers, 1940.⁸

HISTORY OF COASTWISE AND INTERCOASTAL TRAFFIC

Coastwise transportation antedates railroads; in fact, the ocean routes were the only routes by which trade was carried on between the different ports in the Colonial period. Although the building of railroads which connected important seaports brought railroads and coastwise vessels into competition with each other, coastwise shipping has always been important in the commerce of the country.

Prior to the opening of the Panama Canal in 1914, intercoastal

⁷ *Ibid.*

⁸ From National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), p. 48.

shipping was by way of Cape Horn or the Straits of Magellan. In fact, until the opening of the first transcontinental rail route in 1869, trade between the Atlantic seaboard and the Pacific Coast was nearly all via the South American route or via a shorter water-rail-water route made possible in 1854 by the construction of the Panama Railroad.⁹ The opening of the Panama Canal greatly increased the amount of intercoastal commerce. Traffic from as far west as Chicago has moved to New York or Philadelphia for shipment to the Pacific Coast by the Panama Canal route.

World War II brought an end to substantially all coastwise and intercoastal shipping. This was the combined result of the hazards of the trade arising from submarine attacks and the requisition by the Government of most of the vessels engaged in these trades. Because of difficulties which prevented prompt restoration of coastwise and intercoastal service by former operators after the cessation of hostilities, the Interstate Commerce Commission, in 1945, authorized the War Shipping Administration to operate ships in the coastwise and intercoastal services.¹⁰

In authorizing the War Shipping Administration to operate vessels in this service the Commission stated that coastwise and intercoastal shipping was an "integral part of the national transportation system,"¹¹ and it commented on the importance of these water routes in the economy of the regions served. "The dependency of ports and coastal areas upon the existence of water transportation is well known. The economy of such areas, to a large extent, is founded upon the availability of such transportation, without which a large part of their economy would not have been developed, and with the discontinuance of which a large part of their normal activity will cease to exist."¹²

INLAND WATERWAY SYSTEM

The inland waterways of the United States consist of five distinct systems: (1) the Great Lakes system; (2) the Mississippi River system; (3) the coastal rivers of the country; (4) the intracoastal waterway;

⁹ U.S. Maritime Commission, *Economic Survey of Coastwise and Intercoastal Shipping* (Washington, Government Printing Office, 1939), p. 3.

¹⁰ *War Shipping Administration Temporary Authority Application*, 260 I.C.C. 589 (1945).

¹¹ *Ibid.*, p. 593.

¹² *Ibid.*, p. 591.

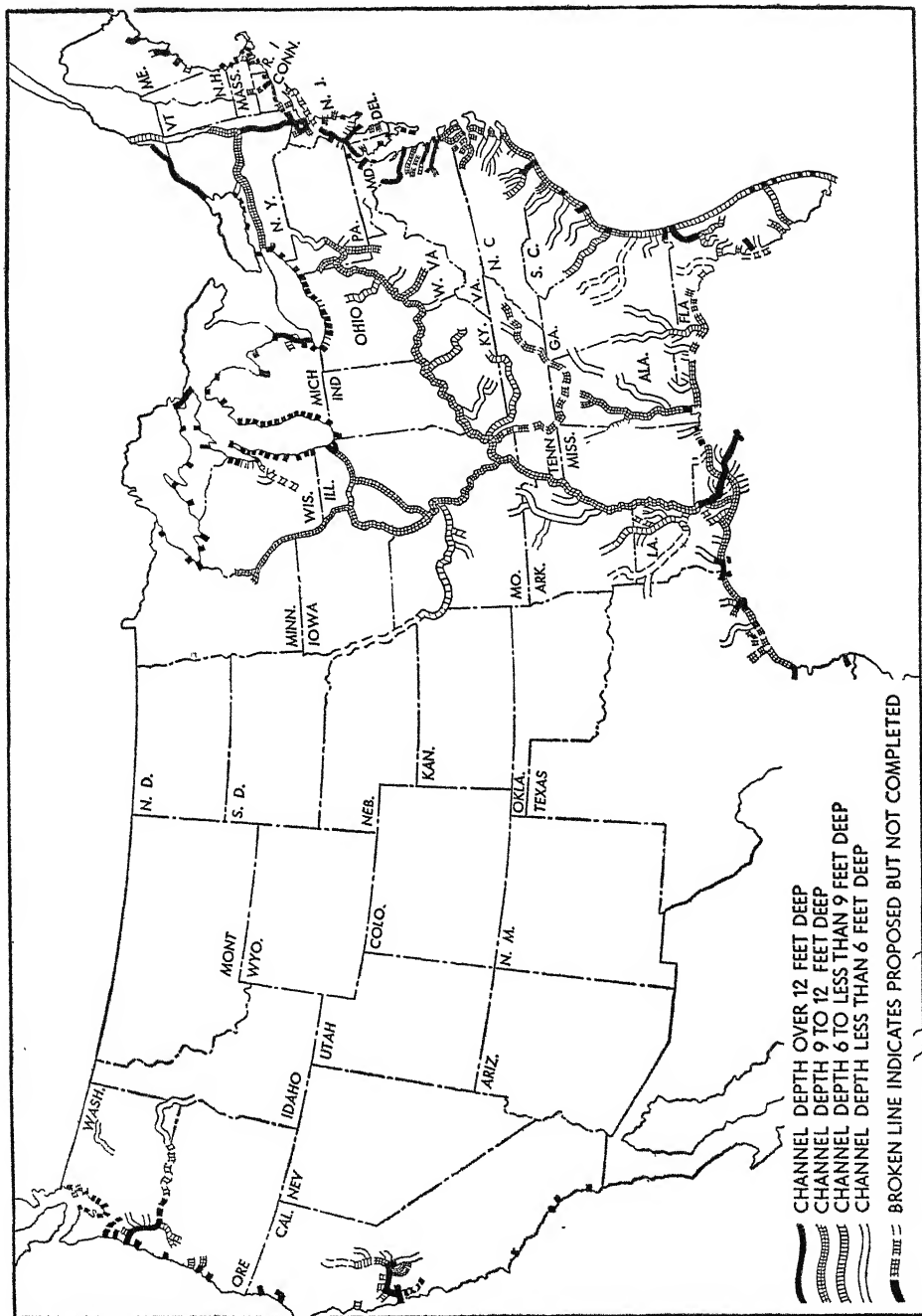


FIG. 52.—Inland and Intracoastal Waterways of the United States, 1939.¹³

¹³ Map from National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), p. 46.

and (5) the New York Barge Canal. The inland waterways are shown on the map in Figure 52.

The Great Lakes System.—The Great Lakes, including the St. Lawrence outlet, are a natural waterway extending from Duluth, Minnesota, and Superior, Wisconsin, at the head of Lake Superior, and from Chicago, Illinois, near the southern extremity of Lake Michigan, to Montreal, Quebec, at the head of deep-draft ocean navigation. Part of this route, of course, lies in Canada. Expenditures have been necessary for the construction of locks between Lake Superior and Lake Huron and between Lake Erie and Lake Ontario. Other expenditures have been required to improve connecting channels and the St. Lawrence River and to construct adequate harbor facilities. For many years efforts have been made to improve the Great Lakes—St. Lawrence route in a joint undertaking on the part of the United States and Canadian governments in order to open the Great Lakes to deep-sea vessels.

The Great Lakes have an area of more than 95,000 square miles and have 8,300 miles of shore line. From Duluth to Montreal the distance is 1,340 miles, and from Chicago to Montreal it is 1,260 miles.¹⁴

Mississippi River System.—This system comprises the Mississippi River from Minneapolis and St. Paul to its mouth, and certain tributary streams, notably the Ohio, the Missouri, and the Illinois rivers. The canal from Lake Michigan at Chicago to the Illinois River unites this system with the Great Lakes.

Coastal Rivers.—In addition to the Mississippi River system, mention should be made of the numerous other rivers which flow into the Atlantic and Pacific oceans or into the Gulf of Mexico. The map of the waterways of the United States indicates where these navigable streams are found.

Intracoastal Waterway.—Another waterway, not yet completed, is the Intracoastal Waterway. The project calls for a waterway, suitable for barges and light-draft vessels, made up of bays, inlets, and protected channels along the Atlantic coast. These are to be united by such canals and connecting channels as will be necessary to make the waterway continuous from Boston to the southern tip of Florida and along the Gulf coast to the Mexican border.

The New York Barge Canal.—Among the purely artificial waterways of the country the New York Barge Canal is the most important. This

¹⁴ National Resources Planning Board, *op. cit.*, p. 50.

canal is largely the old Erie Canal enlarged and reconstructed, together with certain branch canals.

FLOATING EQUIPMENT

The physical characteristics of the various waterways are quite different. As a result, floating equipment which is used on one waterway may not be usable on another. On the Great Lakes large vessels are used. In fact, special types of vessels have been developed for the Great Lakes traffic which are particularly efficient carriers of such bulk cargoes as grain, coal, and ore. On the Mississippi River and its tributaries most of the freight is transported in steel barges which are towed in groups by means of motor-driven propelling units. Even the barges may differ somewhat on different waterways, being adapted to the conditions on a particular waterway.

TRAFFIC ON INLAND WATERWAYS

The Great Lakes System.—In 1944 the net United States commerce moving on the Great Lakes was 211,371,000 tons, or 118,768,819,000 ton-miles.¹⁵ The principal commodities which are transported on the Great Lakes are grain, iron ore, and coal.

Most of the grain moves from the Canadian ports of Fort William and Port Arthur and the American ports of Duluth and Superior, and a smaller part from Chicago and Milwaukee. The largest share of the grain goes to Buffalo for transshipment by rail; some is transferred to smaller boats and moves out through Lake Ontario and the St. Lawrence River to Montreal; and a smaller quantity moves over the New York Barge Canal to New York. Some grain also leaves the lakes at Georgian Bay ports in Canada, from which it is transported by rail to both Canadian and American points.¹⁶

The movement of iron ore is by rail from interior points in Minnesota, Wisconsin, and Michigan to ports on Lake Superior and Michigan, thence down the lakes to Lake Erie ports for transshipment by rail to the iron and steel regions of Pennsylvania and Ohio. Some ore moves south on Lake Michigan to the Chicago and Gary steel districts.

¹⁵ Chief of Engineers, U.S. Army, *Commercial Statistics, Water-Borne Commerce of the United States for 1944*, pp. 2 and 4.

¹⁶ For more detailed discussions of the traffic on the Great Lakes, see Daggett, S., *Principles of Inland Transportation*, rev. ed. (New York, Harper's, 1934), ch. XI; also Corps of Engineers, U.S. Army, *Transportation Series No. 1, Transportation on the Great Lakes* (rev. 1937).

Coal provides the principal back haul for the ore vessels. "Lake-cargo coal" mined in Pennsylvania, Ohio, West Virginia, and Kentucky moves to the Lake Erie ports for transshipment to western points.

The Mississippi River System.—The net total inland traffic on the Mississippi River and its tributaries in 1944 was 91,377,342 tons.¹⁷ The total number of ton-miles was 20,381,558,000.¹⁸ The Inland Waterways Corporation, owned by the United States Government, is an important common carrier on this system. Although much low-grade tonnage moves on the River, the common carriers transport a wide variety of commodities, including sugar, sisal, cotton, canned goods, rice, and coffee.

The New York Barge Canal.—The total traffic on the New York Barge Canal in 1944 was 2,507,000 tons.¹⁹ The traffic is largely carried in wooden or steel barges. The traffic consists chiefly of grain, ore, pig iron, stone, and fertilizer.

TOTAL COMMERCE ON INLAND WATERWAYS OF THE UNITED STATES

Figures are not available to show coastwise and intercoastal traffic in terms of ton-miles. On the inland waterways including the Great Lakes, the total ton-mileage amounted to 150,154,792,000 in 1944; but if the traffic on the Great Lakes is eliminated, the ton-mileage was only 31,385,973,000.²⁰ The former figure is equal to about one-fifth of the ton-miles of freight transported by the railroads in the same year. If Great Lakes traffic is excluded, the inland waterway traffic in 1944 was equal to about 4 percent of the ton-miles transported by railroad. These figures indicate that, exclusive of transportation on the Great Lakes, water transportation is not of great importance in the United States, relatively speaking.

HISTORICAL DEVELOPMENT OF INLAND WATERWAYS

Although inland waterways underwent extensive development in the pre-railroad era, and then suffered a decline after the coming of the railroads, a movement for revival of inland water transportation started in the last decade of the nineteenth century. In 1901 the first National Rivers and Harbors Congress convened at Baltimore. In 1903 the

¹⁷ Chief of Engineers, U.S. Army, *op. cit.*, p. 3.

¹⁸ *Ibid.*, p. 31.

¹⁹ *Ibid.*, p. 30.

²⁰ *Ibid.*, p. 4.

people of the State of New York voted \$101,000,000 to transform the Erie Canal into a modern barge canal. In 1907 President Theodore Roosevelt appointed a commission, known as the Inland Waterways Commission, to prepare a plan for improving inland waterways. This Commission made a report in 1908,²¹ which recommended, among other things, "that the Congress be asked to make more suitable provision for improving the inland waterways of the United States at a rate commensurate with the needs of the people as determined by competent authority."²² This commission was succeeded by the National Waterways Commission, which was created in 1909. The report of this body in 1912 contained specific recommendations for legislation to aid water transportation and to bring about greater cooperation between railroads and water carriers.²³ Water transportation received a stimulus during World War I. During the war the United States Railroad Administration undertook the operation of a barge line on the Mississippi and Warrior rivers. The barge line was turned over to the War Department at the termination of Federal operation of the railroads in 1920. Experience proved that the barge line was hampered by the restrictions and regulations of the War Department when operated directly by that Department, and in 1924 the Inland Waterways Corporation was created to take it over. The capital stock of the corporation is all owned by the United States Government. Use of the corporate form of organization gave the enterprise somewhat greater freedom of action than formerly although it continued to be under the supervision of the War Department until 1939 when the corporation was placed in the Department of Commerce.

REASONS FOR REVIVAL OF INTEREST IN WATER TRANSPORTATION

There were several reasons for the growth of interest in water transportation during this period. First, waterway development was part of the program for conservation of natural resources, a movement that was strong during the administration of Theodore Roosevelt. Second, the rising freight rates after 1910, and particularly after the outbreak of World War I, created a demand for cheaper forms of transportation. In the effort to throw off the burden of rising freight rates the possibilities of water transportation were not overlooked. A third reason for

²¹ *Preliminary Report*, 60th Cong., 1st sess., Senate Doc. No. 325.

²² *Ibid.*, p. 26.

²³ *Final Report of the National Waterways Commission*, 62d Cong., 2d sess., Senate Doc. No. 469 (1912).

the revival of interest was the belief that the development of waterways would keep rail rates down. Water transportation was seen as an automatic regulator of railway rates. A fourth cause of interest in the movement was the belief that waterways were needed to relieve traffic congestion on the railroads. Recurring periods of traffic congestion were responsible for this belief. Lastly, waterway projects were pushed with vigor by the communities and interests which hoped to gain by the policy. Sectional interests and the ambitions of rival cities have always played an important part in the consideration of specific waterway projects. The true national interest has often been obscured by the struggle between those interests that would gain and those that would lose by the development of a particular waterway.

FEDERAL WATERWAY POLICY

Although the Federal Government began to aid in the improvement of harbors as early as 1789, there was hesitation by the States before they surrendered control over harbor improvements to the Federal Government. The first rivers and harbors act was passed in 1823. In the following year an appropriation of \$75,000 was voted for the removal of sand bars and other obstructions to navigation in the Mississippi River.²⁴ After the Civil War the Federal Government took a more active part in the development of waterways. Since 1866 Congress has made appropriations for rivers and harbors either annually or at intervals of two or three years.

A number of undesirable features have often characterized Federal appropriations for waterways in the past. In the first place, many projects were authorized which were of little or no benefit to the commerce of the country as a whole. President Grant made this criticism of Federal waterway appropriations in 1876. After pointing out that many of these appropriations were made "for works of purely private or local interest, in no sense national," he said: "I can not give my sanction to these and will take care that during my term of office no public money shall be expended upon them."²⁵ Many waterway appropriations were maneuvered through Congress by "log-rolling" tactics, and waterway appropriations came to be considered as "pork-barrel legislation." Each Congressman was interested in obtaining appropriations for rivers and harbors in his district regardless of the economic justification of the

²⁴ Johnson, Emory R., *History of Domestic and Foreign Commerce of the United States* (Washington, Carnegie Institution of Washington, 1915), vol. II, p. 321.

²⁵ Quoted in Johnson, *op. cit.*, p. 324.

project. Often the sole benefit sought was the expenditure of public funds in the district, with little expectation that the waterway would prove of value even to the communities concerned.

Another objectionable feature of the Federal appropriations was that no plan for the development of a waterway system was formulated. Appropriations were for isolated projects regardless of their place in a national system.

A third weakness in the method of appropriating money for waterways was piecemeal construction. The National Waterways Commission complained in 1912 that "with the 295 navigable streams and 200 harbors requiring improvement there has been a disposition to distribute river and harbor appropriations over a large number of projects instead of concentrating them upon those which expert investigation showed to be worthy of undertaking."²⁶ Piecemeal construction has undoubtedly increased greatly the cost of improving waterways. President Arthur vetoed an act in 1882 because it appropriated funds for a multitude of scattered works, but the act was passed over his veto.²⁷

An effort was made to remedy these features of our policy as early as 1902. The Rivers and Harbors Act of that year provided for the organization of a board in the office of the Chief of Engineers of the Army, to be known as the Board of Engineers for Rivers and Harbors. The Board originally consisted of five engineers, but the number was later increased to seven. The function of the Board is to review, both from an engineering and an economic standpoint, the surveys of waterway projects made by the War Department. To June 30, 1945, the Board had made 4,104 such investigations.²⁸ In recent years, too, the practice has been followed of making lump-sum appropriations for rivers and harbors, and this sum is then allotted to various authorized projects by the Chief of Engineers. Each year the Chief of Engineers presents to Congress plans for the development of the waterways, and an effort is made to see that moneys appropriated for waterway improvement are spent where they will be most effective in developing a coordinated system of waterways.

INVESTMENT IN WATERWAYS

No accurate figures are available showing the investment in waterways. The annual reports of the Chief of Engineers, however, contain

²⁶ *Ibid.*, p. 514.

²⁷ *Ibid.*, p. 324.

²⁸ *Annual Report of the Chief of Engineers, U.S. Army, 1945*, Pt. I, p. 21.

certain information regarding total expenditures made by the Federal Government on construction and improvement of waterways. As of June 30, 1945, the Federal Government had expended the following sums, exclusive of maintenance expenses, upon waterway projects:²⁹

Seacoast harbors and channels	\$ 726,056,189
Lake harbors and channels	226,365,916
Mississippi River system	843,204,804
Intracoastal canals and other waterways . .	175,777,737
Total	<hr/> \$1,971,404,646

In addition to waterway expenditures of the Federal Government, the States and local units of government have expended substantial sums. The New York Barge Canal constructed by the State of New York, and the partial construction of the Illinois Waterway by the State of Illinois, are two prominent examples. Disregarding expenditures on the New York Barge canal prior to its reconstruction in 1903 the investment of the State of New York in this waterway was \$177,000,000 as of June 30, 1936.³⁰ Up to June 30, 1931, Illinois had spent about \$16,000,000 on the Illinois River. About \$18,000,000 of the construction cost of the Chicago Sanitary Ship Canal may also be ascribed to navigation.³¹ Other large sums have been spent on water terminals by States, municipalities, and private interests. The public investment in water terminals has been estimated at about \$800,000,000.³² The investment in present water transportation facilities cannot be accurately determined from records of expenditures. Capital and maintenance expenditures have not always been clearly distinguished; expenditures for flood control or power development are not always separated from expenditures have not always been clearly distinguished; expenditures represent work that is no longer used or useful for transportation purposes and ought to be written off.

MAINTENANCE OF WATERWAYS

The preceding section indicated that the total investment of the Federal Government in waterway improvements, to the extent deter-

²⁹ *Annual Report of the Chief of Engineers, U.S. Army, 1945, Pt. I, vol. I, p. 20.*

³⁰ Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. III (Washington, Government Printing Office, 1939), p. 48.

³¹ Moulton, H. G., *The American Transportation Problem* (Washington, The Brookings Institution, 1933), p. 440.

³² Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), p. 377.

minable, is nearly \$2,000,000,000. Maintenance expenditures have also aggregated large sums. To June 30, 1945, such expenditures have totaled over \$852,265,000, distributed among the various waterway systems as follows:³³

Seacoast harbors and channels	.. . . .	\$ 353,922,680
Lake harbors and channels	.	90,966,890
Mississippi River system		312,609,042
Intracoastal canals and other waterways	.	94,767,260
Total		\$ 852,265,872

Expenditures for maintenance work during the year ended June 30, 1945, were \$50,266,110.³⁴

SOME CHARACTERISTICS OF WATER TRANSPORTATION

We now turn to a consideration of certain characteristics of water transportation which are significant in connection with controversial questions of public policy. Some of these characteristics have already become obvious from what has been said, but their significance requires elaboration.

GOVERNMENT IMPROVEMENT AND MAINTENANCE OF WATERWAYS

As has become apparent from preceding pages, waterways are provided by the government to the extent that they are not usable in their natural condition. The Federal Government and, to a minor degree, the State governments have made the necessary expenditures to construct or improve water transportation facilities. State and local governments have also provided terminal facilities to a considerable extent.

The Federal Government's jurisdiction over the control and improvement of navigable rivers stems from the power to regulate interstate commerce and has been clearly established by decisions of the Supreme Court of the United States.³⁵ By recent decisions the jurisdiction of the Federal Government has been found to extend to streams which are not navigable in their natural state but which require improvement before navigation is possible.³⁶ The Federal Government's jurisdiction extends, furthermore, to the nonnavigable stretches of a

³³ *Annual Report of the Chief of Engineers, U.S. Army, 1945*, Pt I, vol. I, p. 20.

³⁴ *Ibid.*, p. 18.

³⁵ *Oilman v. Philadelphia*, 3 Wall. 724 (1866); *The Daniel Ball*, 10 Wall. 557 (1870); *South Carolina v. Georgia*, 93 U.S. 4 (1876).

³⁶ *United States v. Appalachian Electric Power Co.*, 311 U.S. 377 (1940).

river in order to preserve and promote commerce on the navigable portions.³⁷

Water transportation, like highway transportation but unlike railway transportation, is a mode of transport in which the "way" is provided and maintained at public expense. With the exception of the service provided by the Inland Waterways Corporation, and recently by the War Shipping Administration, transportation service over waterways is not ordinarily provided by the Government. The policy has been to leave the provision of transportation service over waterways to private enterprise.

The provision and maintenance of waterways by governments is significant in that the expansion of water transportation facilities and the maintenance of existing waterways are to some extent political questions, since decisions regarding the expenditure of public funds on waterways are ultimately made by Congress or, in the case of State and local governments, by other legislative authority.

The building and maintaining of waterways by governments also means that part of the cost of water transportation is borne by the taxpayer unless tolls or other special charges are imposed upon waterway users. This point will receive further attention in subsequent paragraphs.

WATERWAYS AS PUBLIC HIGHWAYS

Since waterways are provided by the government it is natural that they be considered as "public highways" which may be used by anyone. Such has been the general policy throughout our history, although the State of New York in the early days of steamboats granted to Robert R. Livingston and Robert Fulton the exclusive right to navigate the waters of the State with boats "moved by fire or steam." This grant was invalidated by the Supreme Court of the United States in 1824, however, as repugnant to the Commerce Clause of the Constitution.³⁸

If waterways are considered as public highways for anyone to use, it follows that competition in the establishment of for-hire transportation services over a waterway may be expected. Such has usually been the case. Competing carriers may operate over the same waterway or water route. Freedom to establish competitive water-carrier service, however, has been restricted somewhat in recent years by statutory provisions

³⁷ *Oklahoma v. Atkinson Co.*, 313 U.S. 508 (1941).

³⁸ *Gibbons v. Ogden*, 9 Wheaton 1.

requiring certificates of public convenience or necessity or permits, before new for-hire service may be offered.³⁹

CLASSES OF OPERATORS ON WATERWAYS

Because waterways are public highways they are used by private individuals and corporations for the transportation of their own property, as well as by carriers for hire. For-hire carriers, in turn, are of two kinds: common carriers, and contract carriers. The same classification of carriers, it will be recalled, is found in connection with highway transportation.

Private carriers by water are frequently called "proprietary" carriers or "industrial" carriers. Contract carriers by water are frequently referred to as "tramps" or "charterers," the former term being used generally when referring to vessels operating as contract carriers on the high seas. Some carriers operate both as common and contract carriers. Industrial carriers sometimes transport for hire, particularly when the proprietary traffic is unbalanced.

The public derives the greatest benefit from waterways if common-carrier service is available, since common carriers hold themselves out to serve the public generally, while contract carriers usually confine their services to those who ship in large lots or have a large volume of traffic to move over a period of time. Only the larger private concerns with a large volume of traffic can afford to provide themselves with ships or barges to operate as proprietary carriers. When industrial carriers make use of waterways the benefit of the cheaper transportation that may be afforded by the waterways goes to the industries concerned and not to the general public, except as the cheaper transportation may be reflected in lower prices for the products of those industries or may in some other way be diffused throughout society.

According to a report of the Bureau of Foreign and Domestic Commerce made in 1930, there were 200 common carriers, 98 contract carriers, and 187 industrial carriers operating on the inland waterways of the United States exclusive of the Great Lakes.⁴⁰ On the Great Lakes about 95 percent of the traffic is bulk cargo carried by private and contract carriers.⁴¹ Coastwise and intercoastal traffic is carried by all three

³⁹ See ch. XXXI.

⁴⁰ *Inland-Waterway Freight Transportation Lines in the United States*, Domestic Commerce Series, No. 32, p. v.

⁴¹ Federal Coordinator of Transportation, *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), p. 7.

types of carriers. The tank steamers operating in these services are practically all industrial carriers.

We have already noted that two or more common carriers may compete with each other over a given waterway or water route. The common carriers may also find themselves in competition with contract carriers for the traffic of large shippers; and both common and contract carriers may find their charges limited by the possibility that shippers may obtain ships and barges and perform their own transportation service.

FREE USE OF WATERWAYS

We have noted that waterways are improved and maintained by the government. With the exception of the Panama Canal, the waterways under the control of the Federal Government are free of toll. In the Rivers and Harbors Act of 1882 a provision was incorporated prohibiting the collection of tolls or operating charges for the use of "any canal or other improvement of navigation belonging to the United States."⁴²

As a result of this situation the taxpayer bears part of the costs of water transportation, and the rates charged by common and contract carriers making use of publicly provided facilities do not reflect the entire cost of the transportation. In some instances, therefore, water transportation seems to be cheaper than railroad transportation when it may not actually be so. The fact that water transportation often appears superficially to be cheaper than other modes of transportation leads to a demand for the expansion of waterway facilities on the ground that they provide cheaper transportation than railroads. Pressure of shippers who stand to gain by the use of free publicly provided transportation facilities may also lead to the development of waterways that may not really provide a more economical form of transportation if all costs are considered.

COST OF TRANSPORTATION BY WATER

To the shipper the one advantage which water transportation has over transportation by rail is its cheapness. On the Great Lakes grain is transported by contract carriers at charges varying from 0.7 mill to 1 mill per ton-mile.⁴³ Iron ore charges yield about 0.8 mill per ton-mile, and coal 0.5 mill.⁴⁴ These rates are so low that railroads do not com-

⁴² 22 Stat. 209

⁴³ National Resources Planning Board, *op. cit.*, p. 97.

⁴⁴ *Ibid.*

pete for the traffic. Few commodities transported by rail yield less than 5 mills per ton-mile, while the average revenue per ton-mile for railroad freight is between 9 and 10 mills. On improved rivers the cost of transportation is greater than on the Great Lakes or on the ocean, but is lower than by rail. Studies made by the office of the Chief of Engineers show that contract carriers on the Mississippi River system transport coal at rates as low as 2.3 mills per ton-mile;⁴⁵ petroleum at rates which yield an average ton-mile revenue of 2.85 mills;⁴⁶ grain, 2.1 mills;⁴⁷ and sugar, 3.6 mills.⁴⁸ Common-carrier rates tend to be higher than the rates of contract carriers, but they are commonly maintained at differentials below the corresponding rail rates.

The lower rates charged by common and contract carriers by water than are charged by rail carriers are to be explained, in part, by lower costs. The lower costs, in turn, rest upon two major circumstances. First, the tractive effort required to move a given weight in floating equipment is less than that required to move the same weight on wheels. This holds true, however, only when the movement is slow, for the expenditure of energy to propel a boat through the water increases rapidly as speed is increased. Sometimes the lower cost of moving freight by water is partly offset by the greater distance between two points by water than by rail. This is important on meandering streams like the Mississippi and its tributaries.

The second reason for the lower cost of water transportation is that there is no maintenance or capital charge for the use of the waterway. If the waterway is a natural one, no capital investment was made to provide it. Maintenance expenditures may also be comparatively small or nonexistent. If the waterway is artificial, it was built and is maintained at government expense without charge to the users. In the latter case, water transportation may or may not be cheaper than rail transportation, but it appears to be cheaper because the shipper is not charged with the full cost of the service.

If costs which are borne by the taxpayer were included in the calculations of the cost of water transportation it would be seen that the real cost is often much greater than is indicated by the charges which are made by common and contract carriers. The study of public aids to transportation made by the Board of Investigation and Research made

⁴⁵ *Ibid.*, p. 436.

⁴⁶ *Ibid.*, p. 437.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

an attempt to calculate the "unit Federal costs" of transportation on all active waterways for the year 1940. The "unit Federal cost" is the sum of the annual operating and maintenance cost borne by the Federal Government, interest on investment, and amortization of investment in the waterway over a 50-year period, divided by the ton-miles of freight transported over the waterway. As might be expected, these costs vary greatly from one waterway to another. On the Mississippi River from the mouth of the Ohio River to New Orleans the ton-mile cost borne by the taxpayer was only 1.7 mills per ton-mile;⁴⁹ from the mouth of the Missouri River to the mouth of the Ohio River it was 4.9 mills.⁵⁰ On the Missouri River from Kansas City to its mouth the cost was 107.8 mills, while from Kansas City to Sioux City it was 319 mills.⁵¹ On the Illinois Waterway the unit Federal cost was 3.1 mills per ton-mile.⁵² Although these computations raise a number of debatable issues,⁵³ they serve to show that the full economic cost of water transportation must include the costs which are ultimately borne by the taxpayer.

DISADVANTAGES OF WATER TRANSPORTATION

Water transportation, particularly on inland waterways, operates under certain disadvantages which make the service less attractive to shippers. The more important of these require mention.

Slowness.—Water transportation is normally slower than rail transportation. This is not always the case, however, as the delay incident to switching freight cars at junction points and terminals sometimes more than offsets the greater speed at which freight trains are operated.

Seasonal Character of the Service.—Water transportation is impossible on inland waterways during the winter months in the northern parts of the country. Navigation on the Great Lakes is at a standstill during the winter. The New York Barge Canal is open about seven months of the year. In the southern States this difficulty is not experienced, as the waterways can be used throughout the year.

Interruption of Service Due to Drouth or Floods.—Water trans-

⁴⁹ *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), p. 584.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*, p. 585.

⁵² *Ibid.*

⁵³ Among the debatable points is the propriety of amortizing the total capital investment in waterways over a 50-year period. The results must also be qualified by recognition that high unit cost, in some cases, may be due to diversion of traffic from the waterway as a result of rate cutting by railroads.

portation upon improved rivers is often interrupted by floods or drouth. The Inland Waterways Corporation has frequently experienced these difficulties in its operations.

Transfer of Freight.—When freight traffic originates at points which are not on waterways, a transfer of freight from trucks or freight cars to boats or barges is necessary if use is to be made of the waterway. This often absorbs the saving made by the lower costs of water transportation. The same difficulty is encountered if industries are not located at the water front and must haul goods to and from the waterway. Rail service, on the other hand, extends to the industrial plant of the consignor or consignee if siding connections with the railroad are provided.

Liability for Loss and Damage.—Under the Harter Act of 1893 the liability of water carriers for loss and damage to goods shipped is less than that of rail carriers. This sometimes makes necessary the purchase of insurance if the shipper is to be adequately protected. This disadvantage of water carriage is not always present, however, as some water carriers provide full insurance for their cargoes, even insuring against losses caused by an "act of God," losses for which even railroads are not liable.

RAILROAD OBSTRUCTION OF WATER TRANSPORTATION

Railroads have naturally led the opposition to the development of waterways which might divert traffic from the rails. They have also engaged in various practices which have tended to limit the development of water transportation. Important among these measures have been failure to establish facilities for the interchange of traffic with water carriers, refusal to establish through routes and joint rates with water lines, discrimination against connecting water carriers in various ways, and rate cutting, even to an out-of-pocket-cost basis or below, where competition with water carriers is encountered. Legislation designed to prevent these practices will be described in a later chapter.

FUTURE WATERWAY POLICY

The extent to which waterways should be further developed has always been open to argument. Waterway advocates have been energetic in their efforts to encourage further improvement of water transportation facilities. The railroads, on the other hand, have vigorously opposed further expenditures on expansion of the waterway system. The principal arguments advanced on both sides of the controversy require critical examination.

IS WATER TRANSPORTATION CHEAPER?

The major argument in behalf of developing waterways is that they afford cheaper transportation than can be provided by railroads. The reduction of transportation costs to a minimum is socially desirable. If water transportation is really cheaper than rail transportation, every effort should be made to develop it.

Water transportation is cheap on natural waterways because the waterway is a gift of nature. It represents no capital investment on which a return must be earned. Maintenance costs may also be negligible. But not all our waterways are provided by nature. At the other extreme are the waterways which are almost wholly artificial, like the New York Barge Canal. For the construction of these waterways a large capital expenditure is necessary. Large sums are also necessary to keep the property in condition. When these costs are taken into consideration water transportation often proves to be more costly than rail transportation. Between these two extremes are waterways requiring varying amounts of expenditure to make them serviceable. For this reason it is impossible to generalize concerning the cost of water transportation.

It is important that proposals for the improvement of waterways be examined carefully for the purpose of determining whether the expenditures are justified. Waterways which do not provide cheaper transportation, all costs considered, have little to justify them from a purely economic standpoint. Waterways which can reasonably be expected to provide cheaper transportation than other modes of transport are presumably justified, and their development should not be prevented in order to protect special interests which may be adversely affected. It should be recognized, however, that to determine whether a waterway will provide cheaper transportation is by no means easy. It involves not only an estimate of capital and maintenance costs but, what is more difficult, a forecast of the traffic which is available for movement over the waterway. The principle stated by former Commissioner Eastman, however, seems basically sound for a guide in the determination of the economic soundness of a proposed waterway project: "In determining whether a new waterway should be constructed, the essential question, it seems to me, is whether, assuming no reduction in the normal rates of competitors, it would make available new means of transportation which could function, taking *all* costs into consideration,

more economically than existing means."⁵⁴ It should be recognized, however, that there may be situations in which traffic will not support both rail and water transportation facilities, and in which water transportation cannot take the place of essential rail transportation service. Under such circumstances it may be the wiser public policy to forego the development of the waterway in order to support necessary rail transportation facilities, but it is doubtful if this should be done at the expense of those who could avail themselves of the cheaper mode of transport if it were developed. The latter, in other words, would seem to be entitled to some concessions from the normal rail rates.

WATERWAYS TO RELIEVE RAILROAD CONGESTION

Another argument frequently urged in behalf of waterway development is that the waterways are needed to relieve traffic congestion on the railroads. Periods of car shortage and traffic congestion have at times lent strength to this argument. The entrance of the Federal Government into the barge-line business on the Mississippi and Warrior rivers during World War I was an outgrowth of such a situation. Between the two world wars, however, the argument had little application, since there seemed to be an excess rather than a shortage of transportation facilities. The overloading of the transportation system during World War II, however, has revived the argument. The contention that inland waterways should be developed to relieve railroad congestion may be applicable in particular situations, but it does not justify indiscriminate expansion of water transportation facilities. The argument needs to be examined with reference to each particular waterway project proposed.

WATERWAYS AS REGULATORS OF RAILWAY RATES

One of the most common arguments in behalf of developing waterways is that they have a beneficial effect upon the level of railroad rates. The Windom committee which reported to Congress in 1874 on the transportation problem emphasized this point. It stated that water routes were "the natural competitors and most effective regulators of railway-transportation."⁵⁵ It advocated the development of waterways for this reason. The Cullom committee, reporting to Congress in 1886,

⁵⁴ Federal Coordinator of Transportation, *Public Aids to Transportation* (Washington, Government Printing Office, 1940), vol. I, p. vii.

⁵⁵ Select Committee on Transportation-Routes to the Seaboard, *Report*, 43d Cong., 1st sess., Sen. Report 307, Pt. I, p. 243.

made a similar observation about waterways, claiming that they would continue "to exercise . . . an absolutely controlling and beneficially regulating influence upon the charges made upon any and all other means of transit."⁵⁶ Anyone familiar with railroad rate structures in the United States will admit that water rates have sometimes had a controlling influence on rail rates. Since this is the case, the demand for water transportation to lower rail rates is very natural. The argument had particular force before railroad regulation had been set up to protect the public from unjust and unreasonable rates. Waterway opponents maintain that the argument is no longer sound, since regulation is competent to keep rates down. Thus Mr. H. G. Moulton says: "It is economically indefensible to spend millions of dollars for the purpose of providing 'potential' competition when we have available an infinitely less costly means of regulation."⁵⁷ But the contention assumes that a regulatory body can force rates as low as water rates. Rarely can this be done. Confronted by low water rates, railroads will often reduce their rates to meet the water rates, since it is in their interest to do so. But such rates are subnormal; they are less than "reasonable" rates. Commissions cannot require railroads to charge less than "reasonable" rates. Mr. Moulton, in referring to the argument that the St. Lawrence waterway would lower rail rates to the seaboard, suggested direct legislative action as a means of bringing about the same reductions. "Lower rates," he says, "might . . . be secured through legislative means at an infinitesimal expenditure of public money as compared with what would be involved in constructing the waterway."⁵⁸ He goes on to say that relief could be made effective by granting low rates on commodities originating in the interior and intended for export and by granting low import rates on certain other commodities needed by the Middle-West. The contention fails to recognize that even a legislative body, less hampered than a commission in its powers, is still limited in its power to require rate reductions. Under the doctrine of *Northern Pacific Railway v. North Dakota*, elsewhere described,⁵⁹ a legislative body cannot reduce rates below the cost of service, including in cost a reasonable apportionment of the fixed expenses of the railroad. Water competition

⁵⁶ Senate Select Committee on Interstate Commerce, *Report*, 49th Cong., 1st sess., Senate Report No. 46 (1886), p. 170.

⁵⁷ *Op. cit.*, p. 437.

⁵⁸ Moulton, H. G., Morgan, C. S., and Lee, A. L., *The St. Lawrence Navigation and Power Project* (Washington, The Brookings Institution, 1929), p. 187.

⁵⁹ Pp. 435-438, *supra*.

will cause railroads to reduce rates to a point lower than this. Our conclusion is that both commissions and legislative bodies are quite powerless to reduce railroad rates to the level that water competition will force them. For this reason it is likely that improvement of waterways will continue to be urged as a means of reducing rail rates.

The real answer to the argument that waterways should be developed to keep rail rates down is based on other considerations. First, subsidizing water transportation so that rail rates will be reduced to an equally low level is open to the charge of unfairness. It is not unfair to develop a waterway, and thereby force rail rates to the level of the water rates, when the water rates cover the full cost of the service; but it is another thing to force railroads to meet water rates when the latter do not cover the full cost of the service because the taxpayer is paying part of it. In the second place, it should also be recognized that the improvement of a waterway and the reduction of rail rates on competitive traffic may result in higher railroad rates on traffic that is not susceptible to water competition, or on traffic that moves to and from points that are not served by a waterway. In other words, the reduction of rail rates on traffic that is competitive with water carriers does not always represent a net gain to shippers as a whole.

SUBSIDIZED COMPETITION

The railroads argue that, since water transportation is subsidized, a condition of unfair competition is created. The water carrier can quote lower rates than the railroad because no charges are made for the use of the waterway. The railroad, on the other hand, has to maintain its road and pay a return on the capital invested in it. Waterway transportation has been developed on the theory that it is proper for the public to pay part of the costs of transportation since the benefits are so widely diffused. Railroad transportation, on the other hand, has developed on the theory that the users of the railroad should pay the costs of transportation. When the two agencies come into competition with each other, the one which is on a user basis is at a disadvantage. The agency supported in part by public funds has a competitive advantage which is not due to any inherent superiority. It is clear that such a policy places the railroads at a competitive disadvantage and that it may result in the allocation of traffic between the two modes of transportation on the basis of rates charged, and not on the basis of real differences in transportation costs.

The remedy for this situation would appear not to be the refusal to develop waterways when they will really provide a cheaper mode of transport, all costs considered, but rather to place water transportation upon a "user basis" in so far as that would be possible. This could be done by levying tolls for the use of publicly provided water transportation facilities, thereby shifting from the taxpayer to the user of the waterways the costs associated with providing and maintaining waterways. This suggestion is further discussed in a later paragraph.

DO WATERWAYS BENEFIT ALL THE PEOPLE?

Opponents of waterway development frequently allege that the improved waterways benefit only the communities situated on the waterways, and that even there the use of the waterways primarily by private carriers creates a situation in which a few enjoy the benefits paid for by the many. Our waterway policy, it is argued, creates private benefits at public expense.

There is some truth to this argument, but it cannot be accepted without substantial qualification. It is true, of course, that the greatest benefits accrue to the communities located on a waterway. It is also true that there may be changes in industrial location brought about by waterway development. Some communities will obtain a greater advantage than they had before, and other communities will suffer a handicap. But it does not follow that waterway improvement benefits only the communities on the waterway. If a common-carrier service is provided on waterways, and through routes and joint rates are made with connecting railroads, the benefits of the cheaper transportation by water accrue to all portions of the country. Shipments moving over the Federal barge line on the Mississippi River come from nearly every State in the Union. Traffic from distant points is carried at a rate which represents the same saving for the water portion of the haul as if the traffic moved only between points on the waterway.

The whole public may gain through waterway expenditures in another way, even if such expenditures bring cheaper transportation to only a limited number of communities. If cheaper transportation of raw materials is made possible for certain industries, and these industries become concentrated on the waterways, the lower costs of production will, under strictly competitive conditions, be reflected in lower prices to consumers.

In so far as waterways are used largely by industrial carriers, it is

true that the benefits accrue in the first instance to the industries which use them. Whether the resulting savings simply increase the profits of the favorably located industries or whether they are passed on to the public in lower prices for the products of the industries concerned, or are in other ways diffused throughout the whole economy, admits of no general answer, depending, as it frequently does, upon the extent to which competitive conditions prevail in the industries concerned and upon the resulting price policies which prevail in those industries.⁶⁰ Any broad assertion that the benefits resulting from the development of waterways are passed on to the public at large or that they accrue to a limited group of special interests is too simple a statement and cannot stand analysis.

It should be noted, also, that an argument against improving waterways based on the fact that only a small portion of the public is benefited is not really an argument against developing waterways but is one against developing them at the taxpayers' expense. In so far as our waterway policy has been objectionable on the grounds that the benefits have accrued to a limited group of individuals, an appropriate remedy would be to impose a system of tolls and thereby transfer to the users the burden of supplying such facilities.

SHOULD TOLLS BE LEVIED ON WATERWAYS?

From time to time it has been urged that tolls should be levied for the use of waterways which are provided at public expense. We have suggested in previous paragraphs that certain objections to our waterway policy could be overcome by levying tolls, thereby shifting from taxpayers to shippers the cost of providing these facilities. Railroad spokesmen have urged such a policy.⁶¹ The Federal Coordinator favored the imposition of tolls on a moderate scale.⁶² The report of the Coordinator's staff, however, which was engaged in the study of public aids to transportation failed to recommend such a policy. The Board of Investigation and Research study of public aids to transportation was favorable

⁶⁰ For an extended discussion of this problem see Federal Coordinator of Transportation, *op. cit.*, vol. III, pp. 101-110.

⁶¹ *Report of Committee Appointed by the President of the United States to Submit Recommendations Upon the General Transportation Situation* (1938) (The "Committee of Six"), pp. 18-19; Statement of The American Short-Line Railroad Assoc. to House Committee on Interstate & Foreign Commerce in Investigation of National Transportation Policy (1945), p. 8; also Statement of Association of American Railroads to the same committee (1936), p. 53.

⁶² *Op. cit.*, vol. I, p. vii.

to the policy of collecting tolls for the use of waterways.⁶³ One member of the Board, however, was opposed to such a policy.⁶⁴

The principal advantages of a policy of levying tolls for the use of waterways may be summarized as follows: (1) it would remove the charge of unfairness and competitive inequality arising from the present subsidization of water transportation; (2) the rates of water carriers would more nearly reflect the real cost of transportation by water, hence competition between railroads and water carriers would tend to distribute traffic between waterways and other modes of transport more nearly in accordance with their relative economy and fitness; (3) a more careful scrutiny of proposed waterways in order to determine their economic soundness would likely result; and (4) the charge that the improvement and maintenance of waterways by the government results in private benefits at public expense would be removed.

There are certain dangers, however, in a policy of levying tolls. Tolls should not be levied that would prevent the use of waterways already in existence. On these waterways funds have already been expended. Doubtless such projects should be abandoned if the tolls will not defray maintenance costs, but the fact that the traffic will not stand tolls sufficient to yield a normal return on the cost of the waterway is not proof that the waterway should be abandoned. Furthermore, all tolls should be adjusted somewhat in accordance with the ability of the traffic to stand the charge. Canal tolls, before the days of railroads, were adjusted according to the ability of the traffic to bear them. Railroads follow the same practice in fixing their rates. Much rail traffic, we have seen, is carried at rates which are less than the cost of the service if all overhead and constant costs are prorated over the traffic. It is just as sound to levy waterway tolls on this principle as for railroads to make concessions to low-grade traffic. Such a system of levying tolls for the use of waterways would probably fall short of the demands of those who hope by levying tolls to drive water traffic back to the railroads.

RATES OF WATER CARRIERS

We now turn from a discussion of waterway policy to a consideration of some aspects of water-carrier rates.

The rates of contract carriers, as previously noted, are usually lower than rates maintained by common carriers. Since contract carriers

⁶³ *Op. cit.*, pp. 47-48, 413-427.

⁶⁴ Board Member C. E. Childe. See pp. 38-39 of the B.I.R. report.

usually confine their operations to the transportation of commodities in cargo lots, they are able to handle them at low cost and hence at low rates.

The rates of common carriers by water are frequently patterned on railroad rates, and the railroad freight classifications are generally used. Much of the traffic, however, moves on commodity rates. Water-carrier rates are sometimes established as fixed differentials below rail rates.

In the coastwise and intercoastal service port-to-port rates often disregard great differences in distance. In the intercoastal trade the rates have commonly been the same from all Atlantic ports—Jacksonville, Florida, to Portland, Maine, inclusive—to all Pacific Coast ports—San Diego, California, to Vancouver, Washington.⁶⁵

In the coastwise and intercoastal trade steamship lines have generally been organized in "conferences" which endeavor to control rates and competitive practices of the steamship lines engaged in a particular trade.

In the intercoastal trade the practice of the conferences has sometimes been to recognize two classes of steamship lines, known as Class-A and Class-B lines.⁶⁶ The Class-B lines, because of their less frequent sailings and slower service, have been permitted to maintain rates on some commodities slightly lower than the Class-A lines.

On the Mississippi River system and other inland waterways it has been the practice for the common carriers to maintain port-to-port rates which are 80 percent of the corresponding rail rates, i.e., 20 percent lower than the rail rates.⁶⁷ The rule is not invariable, however, and there are many exceptions. Extensive joint rail-barge rates are also in effect, and these rates have usually been made by deducting from the all-rail rates the 20-percent differential on the water portion of the haul. Thus the joint rail-barge first-class rate between Chicago and New Orleans via St. Louis was originally made \$1.15. The first-class rail rate between St. Louis and New Orleans at the time was \$1.125; the port-to-port barge rate between St. Louis and New Orleans was 80 percent of this amount, or 90 cents. The difference between the rail and the barge rate was therefore 22.5 cents. To arrive at the barge-rail rate from Chicago to New Orleans this 22.5 cents was deducted from the Chicago-New Orleans rail rate of \$1.375, thus making the barge-rail rate

⁶⁵ National Resources Planning Board, *op cit.*, p. 372.

⁶⁶ At times Class-C lines have also been recognized.

⁶⁷ See Proposed Report of Examiner Hosmer in I.C.C. Docket 26712, *Rail and Barge Joint Rates*, p. 7.

\$1.15.⁶⁸ In constructing these joint rail-barge rates the differential represented by the saving on the water portion of the haul was deducted from the direct all-rail rate between origin and destination, rather than from the all-rail rate that might apply via the port at which the railroad interchanged traffic with the barge line.

INTERACTION OF RAIL AND WATER RATES

Water-carrier rates are sometimes affected by the corresponding rail rates; in other cases, rail rates are affected by water rates.

When water-carrier rates are made differentials under all-rail rates the water rates are definitely tied to the rates which the railroads main-

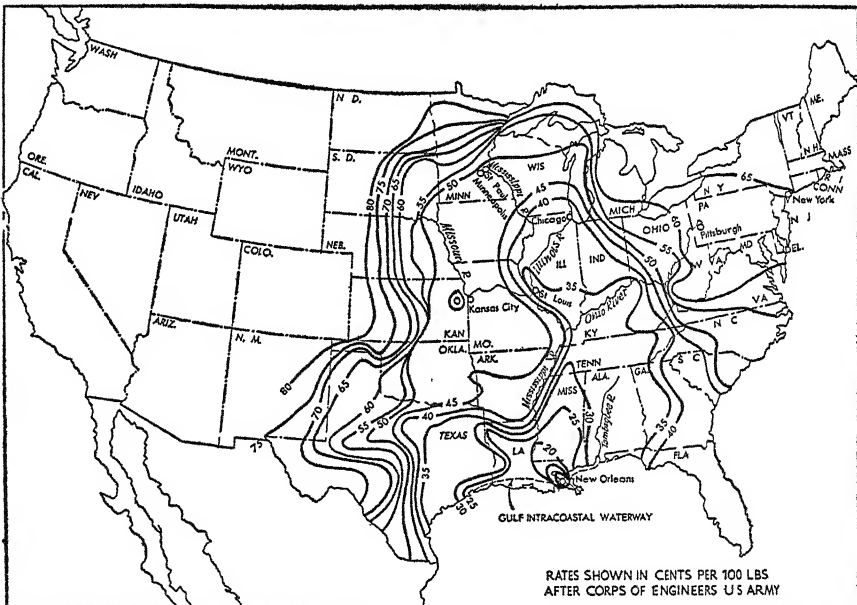


FIG. 53.—All-Rail Carload Rates on Green Coffee from New Orleans, January 1, 1937, Showing Effect of Barge Rates on Rail Rates.⁶⁹

tain. We have already noted that many common-carrier water rates are constructed on this basis.

On the other hand, we have seen that rail rates are frequently affected by water rates. This is particularly true on low-grade commodities moved in bulk which can be transported cheaply by water. In some

⁶⁸ *Ibid.*, p. 7, note 17.

⁶⁹ Map from National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), p. 445.

cases the railroad rates are affected by the cost at which commodities may be transported by industrial carriers. In an earlier chapter the importance of water competition in explaining departures from the Long-and-Short-Haul Clause by railroads was noted.⁷⁰ Many other examples of the effect of water competition on rail rates might be given. Figure 53 shows how the all-rail carload rates on green coffee from New Orleans have been affected by barge transportation on the Mississippi River. Green coffee is a commodity which is well adapted to barge transportation and which cannot be held to the rails where barge transportation is available without substantial reductions in rates.

Questions of principle relating to the adjustment of rates between competing modes of transport are discussed in a later chapter.⁷¹

SELECTED REFERENCES

General discussions of inland water transportation may be found in S. Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), chs. III and VII; and in S. L. Miller, *Inland Transportation* (New York, McGraw-Hill, 1933), chs. XXXV and XXXVI.

A number of periodical articles are valuable for the reader interested in water transportation. Among these are the following: Lytle Brown, "Water Transportation in the United States," 9 *Harvard Business Review* 202 (1931); L. C. Sorrell, "Inland Waterway Transportation," 44 *Traffic World* 575 (1929); G. L. Wilson and H. S. Perry, "Intercoastal Shipping," 171 *Annals of the American Academy of Political and Social Science* 211 (1934); I. M. Bettman, "The United States Intercoastal-Shipping Conference," 12 *Harvard Business Review* 116 (1933); G. Lloyd Wilson, "Coastwise Freight Service and Rates," 68 *Traffic World* 1089 (1941), "Intercoastal Water Freight Service and Rates," 68 *Traffic World* 1225 (1941), "Inland Water Transportation and Rates," 68 *Traffic World* 1353 (1941), "Great Lakes Transportation and Rates," 68 *Traffic World* 1461 (1941).

Water transportation is discussed in Federal Coordinator of Transportation, *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), particularly pp. 5-13 and Appendix A, Part I. Two papers by Government agencies interested in water transportation were published in the National Resources Planning Board volume on *Transportation and National Policy* (Washington, Government Printing Office, 1942). One of these is by the Division of Economics and Statistics of the U.S. Maritime Commission, entitled "Coastwise, Intercoastal, and Great Lakes Shipping," found on pp. 359-383 of the National Resources Planning Board study; the other was prepared in the Office of the Chief of Engineers, U.S. Army, and is entitled "Inland Water Transport," found on pp. 427-455 of the same volume.

⁷⁰ P. 549, *supra*.

⁷¹ Chapter XXXIV.

Much factual material relating to water transportation and a discussion of some of the controversial issues involved is in the two official investigations of public aid to transportation, namely, Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. III (Washington, Government Printing Office, 1940), summarized in vol. I (1941), pp. 20-25, 47-49, 52, 54-60; and Board of Investigation and Research, *Public Aids to Domestic Transportation*, 78th Cong., 1st sess., House Doc. No. 159 (1944), pp. 65-74, 323-427.

Private studies of the water transportation problem are: H. G. Moulton, *Waterways Versus Railways*, rev. ed. (Boston, Houghton Mifflin, 1926); Bureau of Railway Economics, *A Survey of Inland Waterway Transportation in the United States*, Special Series No. 66 (Washington, 1930); H. G. Moulton and others, *The American Transportation Problem* (Washington, The Brookings Institution, 1933), Part V; Marshall E. Dimock, *Developing America's Waterways* (Chicago, Univ. of Chicago Press, 1935).

CHAPTER XXXI

REGULATION OF WATER TRANSPORTATION

THE present system of water transportation regulation was set up by the Transportation Act of 1940. Prior to this time the Interstate Commerce Commission had very limited jurisdiction over certain water carriers. Some other water carriers were under the jurisdiction of the United States Maritime Commission. In order to understand the present system of regulation it is necessary to relate some of the history of regulation prior to 1940.

THE ACT OF 1887

The Act to Regulate Commerce, passed in 1887, gave the Interstate Commerce Commission jurisdiction over carriers engaged in the transportation of persons or property "partly by railroad and partly by water when both are used under a common control, management, or arrangement for continuous carriage or shipment." Some difficulty was experienced in determining what constituted an "arrangement for continuous carriage or shipment," and judicial interpretation of the Act was necessary.¹ When the Interstate Commerce Commission gained jurisdiction over a water carrier under this provision of the statute its control was limited to joint rail and water traffic and did not extend to port-to-port traffic of the water carrier,² although the Commission could require accounts and reports of the carriers covering their entire operations.³

THE PANAMA CANAL ACT, 1912

The Interstate Commerce Commission also derived jurisdiction over certain water carriers by the provisions of the Panama Canal Act of 1912. This Act, which will be discussed more fully elsewhere,⁴ provided that railroads may not have any interest in a common carrier by water with which the railroad does or may compete for traffic. The Act then provided that the Commission might, under certain conditions, permit railroads to operate competing boat lines. When the Commission granted such authorization, the water carrier controlled by the railroad was to be subject to the jurisdiction of the Commission in

¹ *United States v. Munson Steamship Line*, 283 U.S. 43 (1931).

² *In the Matter of Jurisdiction over Water Carriers*, 15 I.C.C. 205, 211 (1909).

³ *Interstate Commerce Commission v. Goodrich Transit Co.*, 224 U.S. 194 (1912).

⁴ See pp. 849-851, *infra*.

the same manner and to the same extent as the rail carrier. In this situation, therefore, the Interstate Commerce Commission had control even over the port-to-port rates of the water carrier.⁵

THE SHIPPING ACT, 1916

Additional carriers by water were subjected to regulation by the Shipping Act of 1916. The Act created the United States Shipping Board and gave it jurisdiction over common carriers by water operating in interstate or foreign commerce on the high seas and upon the Great Lakes. Although the Shipping Act brought an important segment of water transportation under regulatory control, the limited jurisdiction of the Board needs to be emphasized in order to understand later developments. (1) The Shipping Board had no jurisdiction over private carriers. (2) The Board had no control over contract carriers. (3) Water carriers operating upon inland waterways other than the Great Lakes did not come under the Act. (4) By specific provision the Board did not have concurrent jurisdiction with the Interstate Commerce Commission over such carriers as were under the jurisdiction of the latter. Thus water carriers coming under the Commission's jurisdiction as a result of the Panama Canal Act were not subject to the Shipping Board.

The Shipping Act represented an attempt to legalize a certain amount of self-regulation in the shipping industry and at the same time to protect the public against the partial monopoly resulting. It also sought to forbid certain objectionable competitive practices which had developed in the industry, some of which might easily lead to monopoly.

CONFERENCE AGREEMENTS AND THE SHIPPING ACT

Control of competition in the shipping industry had been practiced for many years through so-called "conferences" and "conference agreements." The House Committee on the Merchant Marine and Fisheries declared in 1914:

It is the almost universal practice for steamship lines engaging in the American foreign trade to operate . . . under the terms of written agreements, conference arrangements or gentlemen's understandings, which have for their principal purpose the regulation of competition through either (1) the fixing or regulation of rates, (2) the apportionment of traffic by allotting the ports of

⁵ For assertion of authority over port-to-port rates in this situation, see *Changes in Schedules to Meet Water Competition*, 176 I.C.C. 217, 222-223 (1931); *Rail and Water Rates from Atlantic Seaboard*, 63 I.C.C. 267, 275 (1921); *Reduced Rates from New York Piers*, 81 I.C.C. 312, 330 (1923).

sailing, restricting the number of sailings, or limiting the volume of freight which certain lines may carry, (3) the pooling of earnings from all or a portion of the traffic, or (4) meeting the competition of non-conference lines.⁶

Eighty of these agreements were examined by the committee. Similar conferences have existed in the coastwise and intercoastal trade. Such agreements have been partially, but not wholly, successful in stabilizing rates and controlling competition. It is clear that agreements of this sort are in restraint of free competition and might easily run afoul of the Sherman Anti-Trust Act.

The Shipping Act of 1916 legalized conference agreements. It required all common carriers by water, whether engaged in foreign or domestic trade, to file with the Shipping Board all agreements "fixing or regulating transportation rates or fares; giving or receiving special rates, accommodations, or other special privileges or advantages; controlling, regulating, preventing, or destroying competition; pooling or apportioning earnings, losses, or traffic; allotting ports or restricting or otherwise regulating the number and character of sailings between ports; limiting or regulating in any way the volume or character of freight or passenger traffic to be carried . . ."⁷ The Board had authority to approve, disapprove, or modify any of these agreements. Any agreement approved by the Board was lawful and was exempt from the prohibitions of the Anti-Trust Act. Agreements not approved by the Board were unlawful and might not be carried out.⁸ The Board and its successor, the United States Maritime Commission, approved of many conference agreements and considered them desirable. When the intercoastal conference broke down in 1931, the Shipping Board attempted to bring about the formation of another.

Conference agreements which were not under the control of a regulatory body would be undesirable. In so far as the agreements were successful in eliminating competition, they would give the carriers a certain degree of monopoly power, but such power would be limited somewhat by the existence of contract carriers and by the possibility of private carriage. After a careful consideration of the subject in 1914, the House Committee on the Merchant Marine and Fisheries reached

⁶ Committee on Merchant Marine & Fisheries, House of Representatives, *Report on Steamship Agreements and Affiliations in the American Foreign & Domestic Trade*, 63d Cong., 2d sess., House Doc. No. 805 (1914), p. 415.

⁷ Section 15.

⁸ Except that agreements existing at the time of the organization of the Board were to be lawful unless and until disapproved by it.

the conclusion that the conference agreements were useful and should not be prohibited but that they should be brought under government control.⁹ This was in accordance with other expert opinion¹⁰ and accounts for the provisions of the Shipping Act which placed conference agreements under the supervision of the Shipping Board.

THE SHIPPING ACT AND UNFAIR COMPETITIVE PRACTICES

There were a number of provisions of the Shipping Act which were designed to curb objectionable competitive practices among water carriers.

(1) Section 19 of the Act was intended to prevent what is sometimes described as "cutthroat" competition. It provided that "whenever a common carrier by water in interstate commerce reduces its rates . . . below a fair and remunerative basis with the intent of driving out or otherwise injuring a competitive carrier by water, it shall not increase such rates unless after a hearing the board finds that such proposed increase rests upon changed conditions other than the elimination of said competition."

(2) In an effort to prevent another objectionable practice the Shipping Act made it unlawful for any common carrier by water to persuade or influence any insurance company or underwriter not to give a competing carrier by water as favorable a rate of insurance on its vessels or cargoes as is granted to it or to another carrier.¹¹

(3) Deferred rebates were also prohibited. The term "deferred rebates" was defined in the Act as "a return of any portion of the freight money by a carrier to any shipper as a consideration for the giving of all or any portion of his shipments to the same or any other carrier, or for any other purpose, the payment of which is deferred beyond the completion of the service for which it is paid, and is made only if, during both the period for which computed and the period of deferment, the shipper has complied with the terms of the rebate agreement or arrangement."¹² Deferred rebates have commonly been given by steamship lines to such shippers as will agree to give all their shipments to a given line or to lines in a certain conference. This is the device which common carriers by water have used to fight the competition of tramp

⁹ *Op. cit.*, pp. 416-418.

¹⁰ See Johnson, E. R., "Competition versus Cooperation in the Steamship Business. Proposed Legislation," 55 *Annals of the American Academy of Political and Social Science* 1, 7 (1914).

¹¹ Section 16.

¹² Section 14.

steamers which do not provide a regular service. There was some question regarding the desirability of permitting the practice to continue. The carriers were inclined to defend it, but Congress decided to prohibit it.¹³

(4) The Shipping Act prohibited the use of "fighting ships." The term was defined in the Act as "a vessel used in a particular trade by a carrier or group of carriers for the purpose of excluding, preventing or reducing competition by driving another carrier out of said trade." Fighting ships have sometimes been put in service by the larger steamship lines. They were able to quote ruinously low rates to drive out competing lines. The larger lines had more frequent sailings and maintained remunerative rates except when the smaller operators were trying to obtain cargoes. At such times the "fighting ships" of the larger lines would appear and cut rates to prevent the independent from obtaining any traffic.¹⁴

(5) The Shipping Act also forbade retaliation against shippers who had patronized other lines. The Act prohibited retaliation in the form of "refusing, or threatening to refuse, space accommodations when such are available, or resort to other discriminating or unfair methods, because such shipper has patronized any other carrier . . ."

REGULATION TO PROTECT SHIPPERS

Although the regulatory measures which we have described were directly or indirectly of benefit to the shipper, their first object was to protect the carriers from ruinous competition and to prevent unfair competitive practices. In addition to these measures the Shipping Act contained provisions designed to protect the shipping public against real or possible monopolistic practices. The following provisions fall into this class.

(1) Common carriers by water engaged in interstate commerce were required to publish and file with the Board their maximum rates. The carriers were required to charge no more than these maxima, which were not to be changed except upon ten days' notice. It is to be noted that the Act did not require water carriers to publish and file their actual

¹³ Although deferred rebates were prohibited by the Shipping Act other forms of concessions to shippers who would patronize certain lines exclusively developed, but these devices were frequently found unreasonable or unduly discriminatory. See *Eden Mining Co. v. Bluefields Fruit & S. S. Co.*, 1 U.S.S.B. 41 (1922); *Intercoastal Investigation*, 1 U.S.S.B.B. 400, 467 (1935); *Swayne & Hoyt, Ltd. v. United States*, 300 U.S. 297 (1937).

¹⁴ For an example, see House Committee on Merchant Marine and Fisheries, *op. cit.*, pp. 393-394.

rates and to adhere to them. In this respect the law was much less strict than the provisions of the Interstate Commerce Act applicable to railroads.

(2) It was provided that all rates of interstate common carriers by water should be just and reasonable. The Shipping Board was empowered to determine the reasonableness of rates and might prescribe maximum reasonable rates when existing rates were found unreasonable. However, the Board did not have power to prescribe minimum rates.

(3) The Act forbade undue or unreasonable preference and advantage "to any particular person, locality, or description of traffic," or any unjust discrimination.

THE SHIPPING BOARD AND ITS SUCCESSORS

The Shipping Board originally consisted of five members, appointed by the President with the advice and consent of the Senate. It was not a purely regulatory body since it had other functions as well. The act which created the Shipping Board was entitled: "An Act to establish a United States Shipping Board for the purpose of encouraging, developing and creating a naval auxiliary and naval reserve and a merchant marine to meet the requirements of the commerce of the United States with its Territories and possessions and with foreign countries; to regulate carriers by water engaged in the foreign and interstate commerce of the United States; and for other purposes." The developmental functions of the Board in connection with the establishment of a merchant marine occupied more of its time and attention than the regulatory functions. The Shipping Board was enlarged to seven members in 1920. In 1932 the "Economy Act" reduced the number to three, and in 1933 the Board lost its independent status when by Executive order it became the United States Shipping Board Bureau of the Department of Commerce. By the Merchant Marine Act of 1936 the United States Maritime Commission, consisting of five members, was created to take over the administration of the Shipping Act and related acts.

INTERCOASTAL SHIPPING ACT, 1933

As a result of intense competition in the intercoastal trade after World War I, due partly to overtonnaging of this service, Congress enacted the Intercoastal Shipping Act of 1933 to strengthen controls over competition in this service. The Act applied only to carriers operating in intercoastal commerce via the Panama Canal. The Act applied,

however, to contract carriers as well as to common carriers. This result was accomplished by making the Act applicable to all common carriers, but common carriers were defined as "every common and contract carrier" by water. The Act required carriers to file their actual rates with the Shipping Board, rather than maximum rates only, and required them to adhere strictly to such rates. Thirty days' notice was required for any change in rates, either upward or downward. The Board, however, was not given the power to prescribe minimum rates.

Amendments to the law in 1938¹⁵ extended the provisions of the Intercoastal Shipping Act to common carriers in the coastwise service and on the Great Lakes, but apparently only to common carriers in the strict sense, and not to contract carriers. The same amendments gave the Maritime Commission power to prescribe minimum rates of carriers subject to its jurisdiction in intercoastal and coastwise service, but not to those operating on the Great Lakes.

IS REGULATION OF WATER TRANSPORTATION NECESSARY?

The description of the evolution of control over water carriers reveals that regulation developed more slowly than railroad regulation and that it had not by 1940 become as comprehensive in its coverage or as complete in its controls as had railroad regulation.

The reasons for the situation just noted are not far to seek. In the first place, water transportation is not so easily monopolized as railroad transportation, and competitive conditions are more likely to prevail in the industry. A railroad, as we have seen,¹⁶ must ordinarily have a monopoly of transportation over its line. Competition between railroads, therefore, requires a duplication of the *railway* with its large investment. Competing carriers by water, however, can operate over the same *waterway*, and no duplication of the investment in the waterway is necessary. Common carriers over a waterway, furthermore, encounter competition from contract carriers and private carriers. The opportunities for monopoly charges by water carriers are thus remote, and complaints of excessive rates are infrequent.

In the second place, the circumstances which gave rise to various abuses among railroads do not exist to so large a degree among water carriers. The expenses of water carriers do not contain so large an element of fixed costs as do those of railroads. This is due largely to the

¹⁵ 52 Stat. 953, 964.

¹⁶ See p. 92, *supra*.

fact that water carriers do not have to provide the waterway nor maintain it. Fixed costs in the railroad industry, it will be recalled, arise largely from the huge investment in the railway and from the necessity of maintaining the large physical plant.¹⁷ Since fixed costs are so largely absent in the water-carrier industry, we would not expect to find the industry characterized by the practices which ordinarily arise from the existence of such costs. We would not expect to find discriminatory rate making as common among water carriers; we would not expect to find the tendency so marked for competition to become "ruinous" in character; nor would we expect to find the pressure to combine and establish a monopoly so great. Although these practices have not been entirely absent, they have not existed to the degree found among railroads. In short, competition worked better in the water transport industry than it did in the railroad industry. This accounts for the slowness with which regulation developed, and for the incompleteness of regulation. There are some students of transportation who seriously question whether regulation of water carriers is necessary, at least to the extent to which it was finally established in 1940.¹⁸

Our account of the development of water-carrier regulation up to the time of the enactment of the Transportation Act of 1940, however, reveals that such regulation as we had prior to 1940 had developed in an effort to prevent certain undesirable practices. Conference agreements were monopolistic in character, even though not wholly effective; discriminatory rate practices did occur in the water transport industry; shippers were bludgeoned into patronizing certain steamship lines; competition of the "ruinous" type sometimes occurred; unfair competitive practices had arisen which might lead to monopoly or partial monopoly; and instability of rates, which the business world finds difficult to deal with, characterized water-carrier rates at times. However much one may elaborate upon the essentially competitive nature of water transportation in contrast with the essentially monopolistic nature of railroad transportation, the fact remains that a policy of *laissez faire* in the industry led to abuses and difficulties which the public found objectionable. Unquestionably the natural desire on the part of any

¹⁷ See pp. 134-137, *supra*.

¹⁸ Dewey, Ralph L., "The Transportation Act of 1940," 31 *American Economic Review* 15 (1941), pp. 18-21; Nelson, James C., "New Concepts in Transportation Regulation," in National Resources Planning Board, *Transportation and National Policy* (1942), pp. 197-237.

industry to free itself from the rigors of strictly competitive conditions also played a part in bringing about regulation.

DEMAND FOR FURTHER REGULATION

It will be observed that the regulatory situation with respect to water carriers was somewhat confusing just prior to the enactment of the Transportation Act of 1940. Authority over water carriers was divided between the Interstate Commerce Commission and the United States Maritime Commission. Many water carriers were not regulated at all. Both the Maritime Commission and the Interstate Commerce Commission had different degrees of control over different carriers subject to their respective jurisdictions, and certain controls were entirely lacking.

With this situation existing, and with water carriers becoming more formidable competitors of the railroads, it was not strange that there was agitation for further control of water carriers and that the railroads should be among the supporters of additional control. The Federal Coordinator of Transportation gave careful consideration to the problem in 1934 and came to the conclusion that more effective regulation of water carriers was desirable.¹⁹ This recommendation was renewed with further analysis in 1936.²⁰ The Coordinator considered that the essentials of effective regulation were: (1) control over the amount of competitive service afforded; (2) control over minimum rates; (3) control over the operations of private and contract carriers; (4) adherence to published schedules and prevention of unjust discrimination; and (5) coordination with other forms of transportation.²¹ The proposal that water carriers be further regulated also met with the approval of the Interstate Commerce Commission.²²

Opposition to regulation of water carriers came largely from those who feared that it might result in regulation in the interest of the railroads rather than in the interest of the shipping public. This fear was doubtless intensified by the eagerness of the railroads to have water carriers brought under the control of the Interstate Commerce Commission.

¹⁹ *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), pp. 10-13.

²⁰ *Fourth Report of the Federal Coordinator of Transportation*, 74th Cong., 2d sess., House Doc. No. 394 (1936), pp. 7-22.

²¹ *Regulation of Transportation Agencies*, pp. 11-12.

²² *Annual Report*, 1937, p. 105. See also comments in *Annual Report*, 1940, pp. 14-15.

TRANSPORTATION ACT OF 1940

Congress responded to the agitation for more effective regulation of water carriers by including provisions in the Transportation Act of 1940²³ which set up a new and expanded form of regulation of water carriers. The Act transferred to the Interstate Commerce Commission the jurisdiction over water carriers which had been under the Maritime Commission; it brought additional water carriers under regulation; and it enlarged the regulatory powers to be exercised. The Maritime Commission, however, retained jurisdiction over water transportation in foreign commerce and also over commerce between points in continental United States and the territories of Hawaii, Alaska, and the various possessions of the United States.²⁴

By the Transportation Act of 1940 the new provisions relating to water transportation were added as Part III of the Interstate Commerce Act. In addition to adding Part III to the Interstate Commerce Act the Transportation Act of 1940 made water carriers subject also to certain provisions of Part I of the Act.

PROVISIONS OF PART I OF THE INTERSTATE COMMERCE ACT
APPLICABLE TO WATER CARRIERS

Water carriers were made subject to Section 4—the Long-and-Short-Haul Clause. This was done notwithstanding the fact that water-carrier rates have very rarely violated the long-and-short-haul principle.

Water carriers were also brought under the provisions of Section 5, paragraph 1, which relate to pooling agreements.

Lastly, water carriers were made subject to the provisions of Section 5, of Part I, relating to consolidation, merger, or other forms of unification. Thus water carriers are now subject to the same requirements as railroads so far as consolidations and unifications are concerned.

PART III OF THE INTERSTATE COMMERCE ACT

Part III of the Act relates specifically to water carriers. It applies to common carriers and to contract carriers by water engaged in interstate or foreign commerce, but the treatment of contract carriers is

²³ For description of other provisions of the Act of 1940 see pp. 267-272, *supra*.

²⁴ Since the Transportation Act of 1940 transferred to the Interstate Commerce Commission jurisdiction over only such domestic transportation as was made subject to the Act, and since the Maritime Commission had jurisdiction over some water transportation which is exempted from the provisions of Part III, there would appear to be a certain residue of authority left in the Maritime Commission over domestic water transportation. See Zoll, Erle J., Jr., "The Development of Federal Regulatory Control over Water Carriers," 12 *I.C.C. Practitioners' Journal* 552 (1945), p. 575.

somewhat different than that of common carriers as will be noted in more detail in a subsequent paragraph.

EXEMPTIONS

There are numerous water carriers which are made exempt from the provisions of the Act. In fact, the exemptions are so numerous and important that the Interstate Commerce Commission has said that its jurisdiction "is limited to a small portion of the total transportation by water performed in the United States."²⁵ An enumeration of the principal exemptions will indicate why so little water transportation comes under the Commission's control.

(1) The transportation of commodities in bulk is exempt when the cargo space of the vessel in which such commodities are transported is being used for the carrying of not more than three such commodities. This exemption does not apply, however, to transportation which was subject to the Intercoastal Shipping Act of 1933. Since some transportation of commodities in bulk was subject to that Act, the exemption is not so broad as might at first appear.

(2) Transportation of liquid cargoes in bulk in tank vessels is also exempt from regulation.

(3) Transportation by contract carriers is exempt when "by reason of the inherent nature of the commodities transported, their requirement of special equipment, or their shipment in bulk," it is not actually and substantially competitive with transportation by any common carrier which is subject to Parts I, II, or III of the Act. Contract carriers claiming exemption under this provision must make application to the Commission for such exemption.

(4) Private carriers are exempt since the Act applies only to common and contract carriers, and there is a further exemption of carriers transporting property of a person which owns all or substantially all of the voting stock of such carrier.

(5) There is an exemption provided for transportation which is incidental to transportation by railroad, motor carrier, or express company, and in the nature of transfer, collection, or delivery services in terminal areas, or in the performance of floatage, car ferry, lighterage, or towage.

In addition to the above exemptions there are certain other condi-

²⁵ *Annual Report*, 1943, p. 128. It is estimated that only about 10 percent of total water tonnage is subject to the Act. See I.C.C., *Annual Report*, 1946, p. 36.

tional exemptions. The conditional or qualified nature of these exemptions arises from the fact that the carriers are exempt except to the extent that the Commission shall find, and by order declare, that application of the Act "is necessary to carry out the national transportation policy declared in this Act." The conditional or qualified exemptions are: (1) transportation in interstate commerce by water solely within the limits of a single harbor or between places in contiguous harbors, when not a part of a through movement to or from places beyond; (2) transportation by small craft of not more than one hundred tons' carrying capacity, and certain other small craft;²⁶ (3) ferries, and certain other special types of operations.²⁷

The exemption of bulk cargoes is based in part on the belief that such transportation is not competitive with railroads or motor carriers. The complicated nature of the exemptions is likely to cause difficulty in the administration of the Act. Many of the exemptions seem to have been the result of compromise in an effort to reduce opposition to the enactment of the regulatory legislation.²⁸ In 1944 the Interstate Commerce Commission announced that it had undertaken an investigation of the problems of regulation of domestic water transportation and that it would endeavor to determine the effects, harmful or otherwise, of the many exemptions from the Act.²⁹

COMMON-CARRIER REGULATION

The pattern of regulation applied to common carriers by water follows closely that applied to railroads and to common carriers by motor vehicle. The familiar provisions are found requiring that all rates must be just and reasonable, and free from unjust discrimination or undue preference and prejudice. Through routes and joint rates with other water carriers and with railroads are required.³⁰ Rates must be published and strictly observed, and thirty days' notice of changes in rates is required. The Commission has the power to prescribe maximum, minimum, or maximum and minimum rates, and the power to suspend proposed changes in rates. The Act contains a "Rule of Rate-Making" in

²⁶ The Commission has found that certain types of small craft should be regulated. See *Application of Part III to Transportation by Small Craft*, 260 I.C.C. 155 (1943).

²⁷ Contractors' equipment under certain conditions, and the operations of salvors.

²⁸ Taimage, Geo. E., *Address at the Annual Convention of the Mississippi Valley Association* (mimeographed, 1941), p. 4.

²⁹ *Annual Report*, 1944, p. 20.

³⁰ In this respect water carriers are treated more strictly than motor carriers. See p. 713, *supra*.

Section 307 (f) which is very similar to Section 15a in Part I of the Act. The Commission may prescribe a uniform system of accounts for water carriers and require reports of the carriers.

CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

As in motor-carrier regulation, the provisions relating to control of entry into the business of common carriage are important. The Act requires certificates of public convenience and necessity of water carriers, but a "grandfather clause" entitles common carriers to a certificate who were in bona fide operation as a common carrier by water on January 1, 1940, and who have so operated since that time. Such a certificate shall cover operations over the route or routes over which the carrier has operated, or between the ports which it has served. Interruption of service after the so-called "grandfather date" over which the carrier had no control does not disqualify a carrier for a certificate under the "grandfather clause."

When a certificate is sought which is not covered by the "grandfather clause," the carrier must prove that he "is fit, willing, and able" properly to perform the service proposed and to conform to the requirements of the Act and the rules and regulations of the Commission thereunder, and that the proposed service "is or will be required by the present or future public convenience and necessity."

DIFFERENCES BETWEEN REGULATION OF COMMON CARRIERS BY WATER AND RAILROAD REGULATION

Although the regulatory system prescribed for common carriers by water follows the earlier pattern of railroad regulation, there are certain differences which ought not to be overlooked. The more important of these are as follows:

- (1) There are numerous exemptions from the provisions of Part III of the Act, even in the case of common carriers.
- (2) There is no control over abandonment of operation by water carriers.
- (3) Water carriers are not subject to financial regulation.
- (4) There is no authority given to the Commission to control the amount and kind of service performed by water carriers.
- (5) Federal interference with intrastate water rates to remove discrimination against interstate commerce is prohibited, since Section 303 (k) provides that "nothing in this part shall authorize the Com-

mission to prescribe or regulate any rate, fare, or charge for intrastate transportation . . . for the purpose of removing discrimination against interstate commerce or for any other purpose."

REGULATION OF CONTRACT CARRIERS

The regulation provided for contract carriers differs from that provided for common carriers, following the pattern of motor-carrier regulation. The principal differences are as follows:

(1) Contract carriers are not required to publish their actual rates and adhere to them, but must publish and file with the Commission their minimum rates. Rates lower than the published minima may not be charged. Thirty days' notice is required of any change in these rates.

(2) The Commission may prescribe reasonable minimum rates, but not maximum rates.

(3) Contract carriers must obtain "permits" to operate instead of "certificates of public convenience and necessity." The difference between the requirements necessary to obtain a permit and the requirement imposed on common carriers to obtain a certificate is that the latter requires a showing of public convenience and necessity, while the former requires only a showing that the proposed operations "will be consistent with the public interest and the national transportation policy declared in this act."

The lesser degree of control over contract carriers than over common carriers is to be explained, as was the case in motor-carrier regulation, by the belief that the contract carrier needs to be regulated only to the extent necessary to protect common carriers, and possibly also by the belief that more complete regulation would be unconstitutional.³¹

DUAL OPERATION

The Act forbids a carrier to hold both a certificate as a common carrier and a permit as a contract carrier, although the Commission is empowered to make exception to this prohibition when shown that such dual operation is consistent with the public interest and with the national transportation policy. The prohibition of dual operation was designed to prevent discrimination against shippers by carrying for some at common-carrier rates and for others at lower rates as contract carriers, and also to prevent evasion of the published rates. The Commission has

³¹ See the discussion of the same point in connection with motor-carrier regulation, pp. 705-706, *supra*.

permitted dual operation when the common and contract carrier services were entirely different and did not compete to any substantial extent,³² and under other special circumstances.³³ Where there is a possibility of discrimination if a carrier holds both a certificate and a permit the Commission will not permit dual operation.³⁴

WATER-CARRIER REGULATION TO PROTECT RAILROADS

Since one of the fears expressed by those who were opposed to the further regulation of water carriers in 1940 was that the Commission was "railroad minded" and would regulate water carriers in the interest of the railroads instead of in the interest of the public, it is well to point out that certain provisions in the Transportation Act of 1940 were designed to prevent that result.

One of the most important of these provisions was the Declaration of Policy inserted in the Act before Part I and designed to indicate the general policy which was to be observed by the Interstate Commerce Commission in administering the whole statute.³⁵ The declared policy calls for the "fair and impartial" regulation of all modes of transportation subject to the Act, and, what is more important, it directs the Commission to administer the Act so as "to recognize and preserve the inherent advantages" of each mode of transport. These requirements are clearly designed to prevent the Commission from regulating water carriers, or other carriers, primarily for the purpose of protecting another form of transport.

Another provision in the Act which reveals a similar purpose is found in the Rule of Rate-Making. This provision requires the Commission in prescribing rates of water carriers to consider the effect of rates on the movement of traffic "by the carrier or carriers for which the rates are prescribed." The quoted phrase is apparently designed to prevent the Commission from regulating water-carrier rates for the purpose of protecting the traffic of other carriers.

Another provision designed to prevent regulation of water carriers in the interest of rail carriers is Section 305 (c), which contains a statement that "differences in the classifications, rates, fares, charges, rules,

³² *John L. Goss Corp. Contract Carrier Application*, 250 I.C.C. 101, 104 (1941); *Isthmian S. S. Co. Common Carrier Application*, 250 I.C.C. 359, 360-361 (1942).

³³ *Pope & Talbot, Inc., Common & Contract Carrier Application*, 250 I.C.C. 117 (1941)

³⁴ *S. C. Loveland Co., Inc., Application*, 250 I.C.C. 571, 573-574 (1943); *Shamrock Towing Co., Inc., Contract Carrier Application*, 250 I.C.C. 788 (1943).

³⁵ See p. 269, *supra*.

regulations, and practices of a water carrier in respect of water transportation from those in effect by a rail carrier with respect to rail transportation shall not be deemed to constitute unjust discrimination, prejudice, or disadvantage, or an unfair or destructive competitive practice . . ."

ADMINISTRATION OF PART III OF THE ACT

Water-carrier regulation by the Interstate Commerce Commission is of such recent origin that the body of decisions under the Act is not large. To date most of the Commission's decisions involving water carriers have related to the granting of certificates of public convenience and necessity or permits, and a large proportion of these cases have arisen under the "grandfather clause." There have also been numerous cases involving the interpretation of exemption provisions.

RATE CASES

The Commission has not yet been required to deal very extensively with the port-to-port rates of water carriers. In 1940, prior to the enactment of the Transportation Act of 1940, the United States Maritime Commission prescribed minimum reasonable rates for common carriers by water in westbound intercoastal commerce.³⁶ Since the transfer of jurisdiction over these rates to the Interstate Commerce Commission, the Commission has in numerous instances modified the original order to permit the steamship lines to charge lower rates on particular commodities, usually to enable them to meet the competition of transcontinental rail lines.³⁷

The Rule of Rate-Making in Section 307 (f), following the language of Section 15a of Part I of the Act, requires consideration of the revenue needs of the carriers. Section 307 (c), requiring that in determining the reasonableness of water-carrier rates there shall not be taken into consideration as elements of value of the carriers' properties either goodwill, earning power, or certificates under which a carrier is operating, implies that the Commission will make use of the fair-return-on-fair-value principle. As a matter of fact the Commission has not thus far made water-carrier rates on the basis of the fair-value doctrine.

In the general railroad rate-level cases that have arisen since 1940 the rates of water carriers have also been involved. The revenue needs of water carriers as well as of rail carriers have been considered by

³⁶ *Intercoastal Rate Structure*, 2 U.S.M.C. 285.

³⁷ E.g., 246 I.C.C. 555 (1941).

the Commission, but the same increases in rates authorized for the railroads have been authorized for the water carriers also.³⁸

COMMON OR CONTRACT CARRIER

Since the Act treats common and contract carriers differently, the distinction between the two is important, and it sometimes proves to be a troublesome question, as was found to be true in the regulation of motor carriers. The Act defines a common carrier by water as one "which holds itself out to the general public to engage in the transportation by water in interstate or foreign commerce of passengers or property or any class or classes thereof for compensation. . . ." A contract carrier is one which "under individual contracts or agreements" engages in transportation other than as a common carrier. According to the Act, one who furnishes vessels to others to be used by the latter for the transportation of their own property is to be considered a contract carrier.

The Commission has said that the test of common carriage is the holding out to serve the public generally.³⁹ The furnishing of towing services has been held to be a common-carrier service⁴⁰ and so has the chartering of vessels to others generally.⁴¹

THE "GRANDFATHER CLAUSE"

Common carriers in bona fide operation on January 1, 1940, and continuously since that date, except for conditions beyond their control, are entitled to a certificate under the "grandfather clause." Contract carriers meeting the same condition are entitled to a permit. Difficulty is sometimes encountered in determining whether interruptions of service were or were not within the control of the applicant. The taking over of applicant's vessels by the Government during the war is an interruption of service not within the carrier's control,⁴² but the withdrawal of vessels by the applicant from one service to use elsewhere is an interruption in service which is within the carrier's control.⁴³

³⁸ *Increased Railway Rates, Fares & Charges, 1942*, 248 I.C.C. 545 (1942); *Increased Railway Rates, Fares & Charges, 1946 & 1942*, 264 I.C.C. 695 (1946).

³⁹ *Wilson Line, Inc., Common & Contract Carrier Applications*, 250 I.C.C. 411, 415 (1942); *Cornell Steamboat Co. Contract Carrier Application*, 250 I.C.C. 301, 314 (1942).

⁴⁰ *Cornell Steamboat Co. v. United States*, 321 U.S. 634 (1944).

⁴¹ *Chicago, Duluth & Georgian Bay Transit Co. Applications*, 250 I.C.C. 334, 336 (1942).

⁴² *Bull S. S. Line Common Carrier Application*, 250 I.C.C. 317 (1942); *Southern Pacific Co. Common Carrier Application*, 250 I.C.C. 457 (1942).

⁴³ *McAllister Lighterage Line, Inc. v. United States*, 327 U.S. 655 (1946).

In granting certificates and permits under the "grandfather clauses" of Part III the Commission has imposed fewer restrictions than has been done in administering the comparable provisions of Part II of the Act which relate to motor carriers.⁴⁴ In 1944 the Commission said: "The common-carrier certificates are not restricted to the transportation of the particular commodities formerly carried, or to the specific points actually served, by the holders thereof. As a general rule, common carriers have been authorized to transport commodities generally and to serve all intermediate ports on the waterways traversed by them."⁴⁵ This is in contrast with commodity and point restrictions sometimes imposed in motor-carrier cases.⁴⁶ The greater liberality in the treatment of water carriers than of motor carriers may be due to the somewhat different nature of their operations, including the fact that water carriers frequently hold themselves out to serve ports at which calls are only made on request, and also the fact that the commodities actually carried by water carriers are sometimes limited, although the carrier stands in readiness to carry others as well. The liberality of the Commission in granting carriers authority under the "grandfather clause" to serve ports which were not actually served on and since January 1, 1940, has not been without protest from within the Commission.⁴⁷

CERTIFICATES AND PERMITS FOR NEW OPERATIONS

The cases before the Commission involving new services or the extension of service by water carriers have been few in relation to the number of applications under the "grandfather clauses." The most important question of public policy likely to arise in applications for new service is the extent to which competitive service should be permitted or encouraged, or the extent to which existing carriers should be protected from new competition. The issue has been raised in but few cases.

In 1942 Division 4 of the Commission denied a certificate to two steamship lines to transport automobiles between Detroit and other

⁴⁴ See the statement of the Commission's policy in *Nicholson Transit Co. Contract Carrier Application*, 260 I.C.C. 301 (1944), and in *Nicholson Universal S. S. Co. Applications*, 260 I.C.C. 393 (1944).

⁴⁵ *Annual Report, 1944*, p. 24.

⁴⁶ See pp. 718-721, *supra*.

⁴⁷ See dissent of Commissioner Mahaffie in *Schafer Bros. S. S. Lines Contract Carrier Application*, 250 I.C.C. 353, 356-358 (1942), and of Commissioner Miller in *Isthmian S. S. Co. Common Carrier Application*, 250 I.C.C. 359 (1942), pp. 367-368, and *McLain Carolina Line, Inc., Common Carrier Application*, 250 I.C.C. 521 (1942), pp. 523-524, and *Valley Barge Line Contract Carrier Application*, 250 I.C.C. 564 (1942), p. 566.

ports on the Great Lakes.⁴⁸ Applicants showed that their services had been needed in the past and would be needed again when the normal production of automobiles was resumed after the war. Competing carriers objected and claimed ability to take care of the increased traffic. Division 4 felt that the evidence did not support a finding that future public convenience and necessity required operation by the applicants. Division 4, however, was reversed by the whole Commission.⁴⁹ A District Court set aside the Commission's order,⁵⁰ but the Supreme Court upheld the Commission.⁵¹ The case was one in which efforts on the part of other carriers to block the re-establishment of service by competitors was unsuccessful. The Court, in upholding the Commission, said: "If the Commission were required to deny these applications unless it found actual inability on the part of existing carriers to acquire facilities necessary for future transportation needs, a limitation would be imposed on the power of the Commission which is not found in the Act." There will doubtless be other cases in the future involving the question of the extent to which existing carriers should be protected from additional competition.

PRIVATE CARRIERS AND FOR-HIRE SERVICE

Whether private carriers should be allowed to carry goods for hire as common or contract carriers has been a disputed question. As noted in the preceding chapter, industrial carriers have frequently taken cargo on a for-hire basis when proprietary traffic was absent or insufficient to obtain a full load. The practice makes for the economical use of shipping facilities of industrial carriers and may provide needed shipping capacity when the facilities of other carriers are inadequate. On the other hand, if a regular common-carrier service is considered to be of the first importance from a public standpoint, there may be some point in restricting the practice of industrial carriers taking nonproprietary traffic. The common carriers are inclined to consider that carrying for hire by private carriers is unfair, and that it jeopardizes the ability of the regular common carriers to provide satisfactory service at low rates. The Federal Coordinator at one time recommended that the commodities-clause principle be applied to water carriers, i.e., that water carriers should be prevented from transporting commodities in which they had

⁴⁸ *McCarthy S. S. Co. Common Carrier Application*, 250 I.C.C. 550 (1942).

⁴⁹ 260 I.C.C. 175 (1944).

⁵⁰ 57 F. Supp. 81 (1944).

⁵¹ *United States v. Detroit & Cleveland Navigation Co.*, 326 U.S. 236 (1945).

a proprietary interest.⁵² This, of course, would also mean that proprietary carriers could not act as common carriers. The Federal Coordinator later modified this recommendation to the extent of suggesting that the regulatory body be given power to make exception to the prohibition when it appeared to be in the public interest.⁵³

Part III of the Interstate Commerce Act did not follow either of the Coordinator's recommendations on this point. The Act contains no provision which prohibits private carriers from carrying goods for hire. Under the "grandfather clauses," furthermore, private carriers operating also as common or contract carriers on January 1, 1940, and since that date, have their rights so to operate protected if their operations are shown to be bona fide.⁵⁴

When proposed for-hire services of industrial carriers are not protected by the "grandfather clause" and public convenience and necessity must be proved, the Commission could deny industrial carriers certificates or permits. This was done in one case involving the performance of for-hire transportation by a chemical corporation which operated barges primarily for the transportation of raw materials for its own use.⁵⁵ The Commission said that the applicant was "primarily interested in private transportation and would use the barges as a common carrier for the purpose of keeping them in constant use and reduce operating expenses," and concluded that "the combination of private-carrier and common-carrier relations which would result from the proposed operation is inconsistent with the public interest and with the national transportation policy declared in the act."⁵⁶

In another case, however, a proprietary carrier of lumber was granted a permit to operate as a contract carrier between ports in Washington and Oregon and ports in California.⁵⁷ In this case the granting of permission to operate as a contract carrier was influenced by the inadequacy of transportation furnished by other operators. Commissioner Mahaffie dissented saying that the grant of authority to operate on a for-hire basis was "simply a license to take the more profitable

⁵² *Regulation of Transportation Agencies*, p. 43.

⁵³ *Report of the Federal Coordinator of Transportation*, 1934, p. 58.

⁵⁴ E.g., *E. K. Wood Lumber Co. Contract Carrier Application*, 250 I.C.C. 499 (1942), and dissenting opinion of Commissioner Miller.

⁵⁵ *Davison Chemical Corp. Applications*, 250 I.C.C. 291 (1942).

⁵⁶ *Ibid.*, p. 296.

⁵⁷ *West Coast Steamship Co. Contract Carrier Application*, 250 I.C.C. 235 (1942).

traffic from carriers whose sole purpose is an undertaking to render public service."⁵⁸

FUTURE OF WATER-CARRIER REGULATION

Although there has been some questioning of the necessity of controlling entry into the water-carrier business, and of empowering the Commission to prescribe minimum rates of water carriers,⁵⁹ appraisal of the results of water-carrier regulation must await a longer period of experience in the administration of the present Act. It may be said, however, that the Commission is attempting to regulate water carriers fairly and impartially and that the fears of those who felt that regulation of water carriers by the Commission would result in the suppression of water transport in the interest of the railroads do not seem to have been borne out by results.

SELECTED REFERENCES

For regulation of water transportation prior to 1940 see the following: Emory R. Johnson, *Government Regulation of Transportation* (New York, Appleton-Century, 1938), ch. XIX; Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), pp. 817-834; Emory R. Johnson, Grover G. Huebner, and G. Lloyd Wilson, *Transportation: Economic Principles and Practices* (New York, Appleton-Century, 1940), ch. 44. The most thorough discussion of the extent of the Interstate Commerce Commission's jurisdiction over water carriers prior to 1940 is I. L. Sharfman, *The Interstate Commerce Commission*, vol. II (New York, The Commonwealth Fund, 1931), pp. 17-57.

On conference agreements as a device to control competition see Irvin M. Bettman, "The United States Intercoastal Shipping Conference," 12 *Harvard Business Review* 116 (1933); and R. M. Jones, "Admission to Steamship Conferences," 9 *George Washington Law Review* 93 (1940).

The Federal Coordinator's analysis of water-carrier regulation prior to 1940 and the need for further regulation may be found in *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Sen. Doc. No. 152 (1934), particularly pp. 5-13, 41-45, Appendix A, Pts. 2 and 3; and in *Fourth Report*, 74th Cong., 2d sess., House Doc. No. 394 (1936), pp. 7-22.

On regulation under the Transportation Act of 1940 see Daggett, *op. cit.*, pp. 834-841; Anon., "Regulation of Water Carriers by the Interstate Commerce Commission," 50 *Yale Law Journal* 654 (1941); and Erle J. Zoll, Jr., "The Development of Federal Regulatory Control over Water Carriers," 12 *I.C.C. Practitioners' Journal* 552 (1945).

⁵⁸ *Ibid.*, p. 238.

⁵⁹ Nelson, James C., *op. cit.*, pp. 236-237.

CHAPTER XXXII

AIR TRANSPORTATION

AIR transport is the most recent form of transportation to develop, and it is also the most rapidly growing. What place it will occupy in the transportation system of the future cannot be accurately foretold, depending, as it does so largely, upon technological advances in the industry. No attempt is made in this chapter to predict the future, but rather to trace the development of air transport up to the present time, describe its present status, and point out some of the characteristics of the industry which are significant and which have a bearing on questions of public policy.

HISTORICAL DEVELOPMENT

The first airplane flight was in 1903, when the Wright brothers made their trial flights at Kitty Hawk, North Carolina. Even before World War I sufficient progress had been made in the development of aircraft to indicate its possibilities as an instrument of warfare. During that war immense strides were made in aircraft development, and at the close the United States had built nearly 17,000 planes and taught some 10,000 men to fly.¹ After the war many pilots became civilian aviators. Surplus government planes were purchased and used for stunt flying, carrying sight-seeing passengers, giving flying instruction, taking aerial photographs, and for various other purposes. Experimentation with air-mail service was begun by the Government in 1918. Transcontinental air-mail service was established in 1919. Continuous day-and-night service for transcontinental air mail was established in 1924. The early air-mail routes were operated by the Government, but the Kelly Act of 1925 authorized the Post Office Department to contract with private companies for the transportation of mail. The first contracts were let in 1926, and Government operation of air-mail routes ceased entirely in 1927. Since then air mail has been transported by private air-transport companies except for a period of about three months in 1934. The contract system stimulated the development of commercial air transportation. Air-mail carriers were required by the Government to provide facilities for the transportation of passengers in order to reduce the cost of transporting mail.

¹ U.S. Department of Commerce, Bureau of Air Commerce, *Aeronautics Bulletin No. 1, Civil Aeronautics in the United States*. (1937), p. 3.

Air transportation was further promoted by the Air Commerce Act of 1926, which placed the establishment of airways under the control of the Department of Commerce and empowered the Department to provide various aids to air navigation. In 1938 these functions were assumed by the newly created Civil Aeronautics Authority, and later by the Civil Aeronautics Administration.

Rapid technological advances in airplane design and construction and in the development of various aids to air navigation which occurred

TABLE XXXIII
GROWTH OF SCHEDULED AIR TRANSPORTATION IN THE UNITED STATES^a

Year	Revenue Passengers Carried	Mail (Ton-Miles)	Express and Freight (Pounds)
1926	5,782 ^a	.. .	3,555
1927	8,661 ^a	... ..	45,859
1928	47,840 ^a	.. .	210,404
1929	140,581	.. .	249,634
1930	329,943		359,523
1931	413,366		788,059
1932	417,366		1,033,970
1933	433,964		1,510,215
1934	406,334	2,461,411	2,133,191
1935	663,261	4,132,708	3,822,397
1936	911,148	5,741,436	6,958,777
1937	958,510	6,698,230	7,127,369
1938	1,176,858	7,422,860	7,335,967
1939	1,717,090	8,584,891	9,514,229
1940	2,727,820	10,035,638	12,506,176
1941	3,768,892	12,900,405	19,209,671
1942	3,349,134	21,066,627	39,968,785
1943	3,351,537	35,927,042	57,543,591
1944	4,575,852	50,023,501	66,011,669

^a Revenue and nonrevenue passengers.

during World War II have set the stage for further rapid growth of air transportation in the future.

The growth of scheduled air transportation in the United States is shown in Table XXXIII.

Notwithstanding the remarkable growth of air transportation, it is quantitatively the least important mode of transport. As pointed out in a previous chapter, the passenger-miles performed by the airlines in the United States in 1944 were only 0.8 percent of the total intercity passenger-miles of service performed by all modes of transport, and the ton-miles of freight and express carried were only 0.01 percent of the

² From Civil Aeronautics Administration, *Statistical Handbook of Civil Aviation* (1945).

total ton-miles of intercity freight.³ These facts, however, do not mean that air transport is unimportant. Air transport provides a superior type of service that other modes of transport cannot provide. Much of the traffic carried by airlines is new traffic, that is, it is traffic which would not move if only surface transportation agencies were available. The superior service provided by air transport opens up immense possibilities of new travel and trade.

THE RIGHT TO USE AIRSPACE

An important legal point had to be cleared up before the way was open for the development of air transport. This was the right to fly over privately owned land. It is obvious that if the landowner's consent were necessary before one could fly over his land the development of air transportation would be handicapped by the necessity of obtaining rights-of-way. An ancient legal maxim—*cujus est solum ejus est usque ad coelum* ("who owns the soil owns also to the sky")—was often invoked in defense of the contention that the landowner's consent was necessary for flight over his land and that an action of trespass could be brought for unauthorized flight. If the right of flight was inconsistent with the property rights of landowners, the future of air transportation would have depended upon a constitutional amendment or upon condemning a right-of-way over private property.

The Uniform Aeronautics Act which has been enacted by many States declares that there is an absolute ownership of airspace by the landowner, subject, however, to a public right of flight when this does not interfere with the existing use of the land or is not dangerous to persons on the ground.⁴ Later the American Bar Association sponsored a Uniform Code for Aeronautics which denied absolute ownership of air space by the landowner. Section 6 of this code provides that

passage in aircraft over the lands and waters of this state is lawful unless in violation of the air traffic rules or minimum safe altitude of flight as promulgated by the State Aeronautical Commission . . . or unless so conducted as to constitute a nuisance or as to interfere with the then existing use to which the land or water or space over the land or water is put by the owner or occupant thereof, or unless so conducted as to be unreasonably dangerous to persons or property on the land or water beneath.⁵

³ See p. 19, *supra*.

⁴ See Niles, Emory H., "The Present Status of the Ownership of Airspace," 5 *Air Law Review* 132, 135 (1934).

⁵ Quoted in Hayden, James J., "Airspace Property Rights under the New Aeronautical Code," 4 *Air Law Review* 31, 31-32 (1933).

The Federal Air Commerce Act of 1926 declared that there was a public right of flight in the navigable air space of the United States. The Civil Aeronautics Act of 1938 also asserts that there is such a right.

Statutory assertions of a right to flight, however, would be of no avail if the courts insisted that as a matter of constitutional right the owner of land could control the use of the airspace above it. The courts, however, have rejected the *ad coelum* doctrine. The Supreme Court of the United States had occasion to comment on this doctrine in a case that came before it in 1946.

It is ancient doctrine that at common law ownership of the land extended to the periphery of the universe. . . . But that doctrine has no place in the modern world. The air is a public highway, as Congress has declared. Were that not true, every transcontinental flight would subject the operator to countless trespass suits. Common sense revolts at the idea. To recognize such private claims to the airspace would clog these highways, seriously interfere with their control and development in the public interest, and transfer into private ownership that to which only the public has a just claim.⁶

The above pronouncement should not be interpreted as giving unlimited right of flight over the land of another. In the case above referred to, the Court specifically recognized limitations on the right of flight.

We have said that the airspace is a public highway. Yet it is obvious that if the landowner is to have full enjoyment of the land, he must have exclusive control of the immediate reaches of the enveloping atmosphere. Otherwise buildings could not be erected, trees could not be planted, and even fences could not be run. . . . The landowner owns at least as much of the space above the ground as he can occupy or use in connection with the land. The fact that he does not occupy it in a physical sense—by the erection of buildings and the like—is not material.⁷

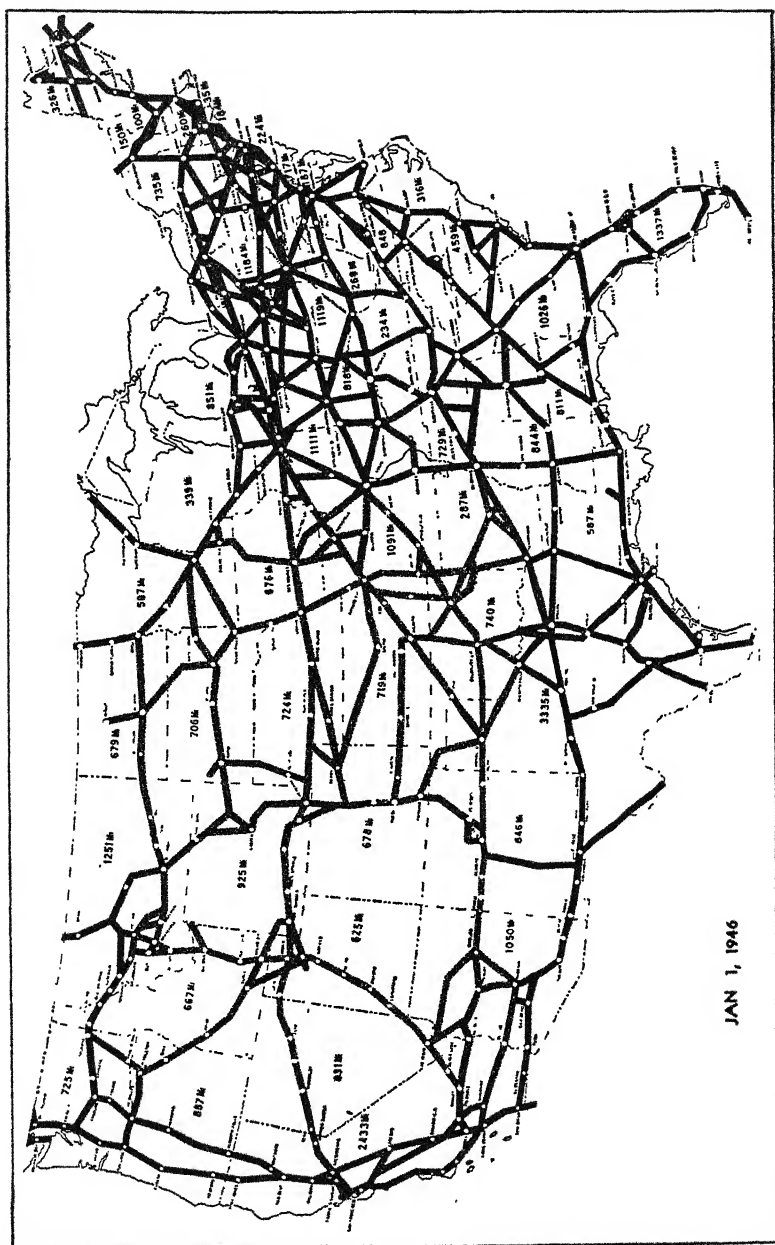
Recognition of the landowner's ownership of space above his land, at least of that portion of it which he can occupy, sometimes makes it necessary to purchase air rights or easements from owners of property in the vicinity of airports.

AIRWAYS

Although the airspace is a public highway, it has been found desirable, as a practical matter, to confine regularly scheduled air transport operations to restricted "airways" which are provided with various

⁶ *United States v. Causby*, — U.S. — (1946) (not yet printed).

⁷ *Ibid.*, p. —.



aids to navigation. Modern aids to flying, however, make airplanes less dependent upon such facilities than was formerly the case.

An airway is a marked route to guide the flight of airplanes. It is usually equipped with beacon lights, radio markers, radio range beacons, emergency landing fields, and communication facilities for the transmission of weather information and for communicating at all times with aircraft in flight. Not all airways, however, are completely equipped with these aids to navigation. An airway is considered to be 10 miles wide. Intermediate or emergency landing fields are located from 50 to 100 miles apart. Beacon lights are located about 10 miles apart but are now considered of little use, since the pilot of commercial planes keeps his course by the aid of the radio range beacon.

The airway system of the United States is provided and maintained by the Federal Government through the Civil Aeronautics Administration in the Department of Commerce.

On July 1, 1946, there were 36,146 miles of Federal airways.⁹ To June 30, 1941, the total capital investment in the civil airways was over \$31,000,000.¹⁰ Annual expenditures for maintenance and operation of the Federal airway system have varied from year to year but have increased from \$307,000 in 1926 to \$5,700,000 in 1941.¹¹

The airways are used not only by commercial airlines but also by private planes and by army and navy aircraft. Just before our entrance into World War II, 67.9 percent of the flying on the airways was done by the Army and the Navy, 24 percent by scheduled air carriers, and 8.1 percent by private flyers.¹² The Federal airways system is shown on the map in Figure 54.

AIRPORTS

Air transportation requires not only airways but airports as well. On October 1, 1946, there were 4,361 airports in the United States, classified as follows:¹³

Commercial	1,823
Municipal	1,383
C.A.A. intermediate landing fields	202
Military	795
Miscellaneous (private and miscellaneous government)	158
Total	4,361

⁹ Figure furnished by Civil Aeronautics Administration

¹⁰ Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), p. 474.

¹¹ *Ibid.*

¹² *Civil Aviation*, 78th Cong., 2d sess., House Report No. 1893 (1944), p. 5.

¹³ *C.A.A. Journal* 150 (1946).

Most airports classed as "commercial" are used principally for flight training, sight-seeing, recreational flying, and the like, rather than as airports for scheduled airlines. The typical airport used by the scheduled airlines is publicly owned.

The Civil Aeronautics Administration classifies airports according to their size and adequacy into five classes. Class-I airports are the smallest and least adequate; Class-V airports are the largest and most adequate. The basis of the classification is as follows:¹⁴

Minimum Standards	Class I	Class II	Class III	Class IV	Class V
Length of landing strips ^a	1,800-2,700 ft	2,700-3,700 ft.	3,700-4,700 ft.	4,700-5,700 ft.	5,700 ft. and over
Width of landing strips	300 ft.	500 ft.	500 ft.	500 ft.	500 ft.
Length of runways	None	2,500-3,500 ft.	3,500-4,500 ft.	4,500-5,500 ft.	5,500 ft. and over
Width of runways	None	150 ft. ^b 100 ft. ^d	200 ft. ^c 150 ft. ^b	200 ft. ^c 150 ft. ^b	200 ^c 150 ^b
Percentage of winds covered by landing strip or runway alignment	70	75	80	90	90

^aLength of landing strips and runways based on sea-level conditions; must be increased for higher altitudes

^bNight operation.

^cInstruments.

^dDay operation only.

Class-I airports are suitable for private planes and small craft generally. Class-II airports can accommodate commercial planes commonly used for local and feeder service. Only Class-III and larger airports can accommodate the planes in common use by the commercial airlines; and the largest commercial planes require runways of from 5,000 to 7,000 feet.¹⁵

On October 1, 1946, the number of airports in the various classes was as follows:¹⁶

Class Sub-I (not up to Class-I standards)	486
Class I	1,334
Class II	1,208
Class III	486
Class IV and over	847
Total	4,361

The total investment in publicly owned airports is estimated to have been about \$352,000,000 in 1940.¹⁷ Since 1940, large sums have been spent in building additional airports and improving old ones.

¹⁴ Civil Aeronautics Administration, *National Airport Plan*, 78th Cong., 2d sess., House Doc. No. 807 (1945), p. 4.

¹⁵ *Ibid.*, p. 5.

¹⁶ 7 *C.A.A. Journal* 150 (1946).

¹⁷ Board of Investigation and Research, *op. cit.*, p. 488.

FEDERAL AID IN AIRPORT BUILDING

Prior to 1933, airports were largely financed by local governments. The Air Commerce Act of 1926 barred the Federal Government from direct construction and operation of airports. This was accomplished by a provision in the Act which authorized the Secretary of Commerce "to establish, operate, and maintain . . . all necessary air navigation facilities except airports." As a relief measure, however, large sums of money were advanced by the Federal Government for the construction and improvement of airports during the depression of the thirties. This aid was extended through the Civil Works Administration, then later through the Federal Emergency Relief Administration, and finally through the Works Progress Administration.¹⁸ The Civil Aeronautics Act of 1938 removed the limitations on Federal participation in airport development and specifically empowered the Administrator of Civil Aeronautics to engage in a plan of airport development and improvement. The Act directed the Civil Aeronautics Authority to make a survey of airports and to make definite recommendations as to whether the Federal Government should participate in the construction, improvement, and development of a national system of airports, and, if Federal participation was recommended, the extent and manner of its participation. The Civil Aeronautics Authority made its report in 1939 and recommended Federal participation in the development of an adequate system of airports, including financial assistance.¹⁹ Appropriations were made by Congress in 1940 for a program of airport construction under the supervision of the Civil Aeronautics Administration. Additional funds appropriated from time to time resulted in a rapid expansion and improvement of airport facilities. In 1944, further expansion of airports through a Federal-aid program was recommended by the Civil Aeronautics Administration and the Secretary of Commerce.²⁰

FEDERAL AIRPORT ACT OF 1946

In 1946 Congress enacted the Federal Airport Act,²¹ which authorizes the expenditure of \$500,000,000 over a seven-year period in the form of Federal aid to States and municipalities for the construction and improvement of airports. In general, the Federal Government will pay 50 percent, and sometimes more, of the cost of projects which have

¹⁸ *Ibid.*, p. 484.

¹⁹ *Airport Survey*, 76th Cong., 1st sess., House Doc. No. 245.

²⁰ *National Airport Plan*, 78th Cong., 2d sess., House Doc. No. 87 (1945).

²¹ Public Law 377—79th Cong.

been approved by the Civil Aeronautics Administration. In some respects the policy established by the Act is similar to the Federal-aid highway policy whereby 50 percent of the cost of improving highways in the Federal-aid system is borne by the Federal Government.

A rapid expansion of airport construction seems likely to occur in the near future, not only because of the Federal Airport Act but because the rapid growth of both private and commercial air transportation makes the construction of additional airports and the expansion and improvement of others a necessity. Some of the newest and largest airports in the country are overcrowded at the present time.

AIRPORTS AS PUBLIC ENTERPRISES

We have pointed out that airports are to a large extent provided by municipalities. Legal questions concerning the right to use the proceeds of taxes to purchase and support airports, the right to issue municipal bonds to finance the purchase and construction of airports, and the right to use the power of eminent domain to condemn land for airport purposes depended upon a recognition by the courts that airports were in the nature of a public enterprise. The courts have almost unanimously recognized the public nature of airports; have upheld the right of municipalities to spend tax money to purchase and maintain them, and to issue bonds for the purpose of financing airport construction; and have upheld the exercise of the power of eminent domain to acquire land for airports.²²

PROTECTION OF AIRPORT APPROACHES

Closely allied with the right to 'condemn land for airport purposes is the right to restrict the use of lands adjacent to airports and to require the removal of structures or trees which interfere with take-offs and landings. Obstructions may sometimes be condemned as public nuisances, and their removal required. Local ordinances are common which forbid the erection of obstructions to airports, but the most effective way of dealing with the problem is through a system of airport zoning which carefully restricts the height of structures at different distances from the airports. At the end of 1945 there were thirty-six States which had legislation on the subject of airport zoning.²³

²² For a discussion of this subject which reviews the court decisions which are pertinent see Rhyne, C. S., *Airports and the Courts* (Washington, National Institute of Municipal Law Officers, 1944), chs. I and II.

²³ Rhyne, Charles S., "Federal, State and Local Jurisdiction over Civil Aviation," 11 *Law & Contemporary Problems* 459, 474 (1946).

When it is necessary to locate airports in areas that are built up, or where the establishment of an airport may interfere with the normal use of adjacent lands, it may be necessary to purchase air rights, or "avigation easements," over runway approaches.²⁴

REASONS FOR PUBLIC OWNERSHIP OF AIRPORTS

Two factors seems to explain the tendency for airports to be provided by municipalities or other governmental units. The first is the fact that Federal aid has been available for the financing of publicly owned airports but not for private airports. Under the Federal Airport Act of 1946, for instance, Federal aid is available only for the construction of airports on land that is publicly owned. The second reason for municipal ownership is that airports do not ordinarily pay their way, and hence private enterprise will not provide the airport facilities which a city wants.

AIRPORT INCOME AND EXPENSE

The statement that airports do not ordinarily pay their way requires further discussion. Public airports derive income from landing fees, rentals, sale of fuel, concessions to persons permitted to provide restaurant or other facilities, and from various other sources. The airports, however, are not usually operated at a profit, even when depreciation and interest on investment are disregarded. The Board of Investigation and Research study of public aid to transportation found that in 1940 the ratio of airport income to expenses of operation and maintenance of publicly owned airports was 77.1 percent.²⁵ The study also showed a tendency for the airports in the larger cities to make a poorer financial showing than those in smaller cities. The ratio of income to expense was only 58.7 for the airports in cities having a population of over 500,000. It was 85.1 in cities of 100,000 to 500,000 population; 97.3 in cities of 50,000 to 100,000; 74.2 in cities of 25,000 to 50,000; 110.9 in cities of 5,000 to 25,000; and 249.1 in cities of less than 5,000 population.²⁶

The Board of Investigation and Research study, in referring to the poorer financial showing of airports in the larger cities, says: "Whether this circumstance arises from (1) failure to take advantage of income opportunities, (2) lax administration, (3) wasteful expenditures for

²⁴ For an interesting discussion of the methods used in obtaining avigation easements see Fabian, R. H., "Appraising the Right of Flight," 12 *Appraisal Journal* 9 (1944).

²⁵ *Op. cit.*, p. 496.

²⁶ *Ibid.*, p. 499.

nonessential frills, (4) rising costs associated with traffic congestion at large, centralized terminals, or (5) from other causes, is not clear.”²⁷

AIRLINES

The Civil Aeronautics Administration recognizes twenty domestic air carriers. One of these, however, does not carry passengers, but provides a nonstop mail and express pick-up and delivery service to communities along its routes.²⁸ Another operates over the Caribbean,²⁹ and another in the Hawaiian Islands.³⁰ There remain, therefore seventeen major passenger-carrying airlines operating in continental United States.

The four largest airlines—American Airlines, United Air Lines, Transcontinental & Western Air, Inc., and Eastern Air Lines—were commonly known as the “Big Four.” The “Big Four” has recently become the “Big Five” with the expansion of Northwest Airlines. In recent years the “Big Five” have accounted for more than 80 percent of the revenue passenger-miles in domestic service, over 90 percent of the express pound-miles carried, and about 90 percent of the mail pound-miles flown.³¹ The remainder of the domestic air transportation business is divided among the other twelve airlines.³² The routes flown by the major air carriers are shown in Figure 55.

The airlines referred to above are scheduled air carriers operating under certificates of public convenience and necessity as required by the Civil Aeronautics Act. Since the war there has grown up a considerable amount of nonscheduled air transportation of both passengers and freight by other than the regular airlines. Some of this transportation may fall into the category of contract carriage, but some is clearly common carriage even though the carrier may not be operating on fixed schedules or even over regular routes. Data concerning the carriers engaged in these operations and the extent of their business are not available at the present time. In 1946, however, the Civil Aeronautics Board ordered the carriers engaged exclusively in nonscheduled operations to file with the Board certain information regarding their

²⁷ *Ibid.*

²⁸ All American Aviation, Inc.

²⁹ Caribbean Atlantic Airlines, Inc.

³⁰ Hawaiian Airlines, Ltd.

³¹ Frederick, John H., *Commercial Air Transportation*, rev. ed. (Chicago, Richard D. Irwin, Inc., 1946), p. 129.

³² The other twelve lines are: Braniff Airways; Chicago & Southern Air Lines; Colonial Airlines; Continental Air Lines; Delta Air Lines; Inland Air Lines; Mid-Continent Airlines; National Airlines; Northeast Airlines; Pennsylvania-Central Airlines; Pioneer Air Lines; Western Air Lines.

STATUS OF CERTIFICATED UNITED STATES AIR OCTOBER 31, 1945

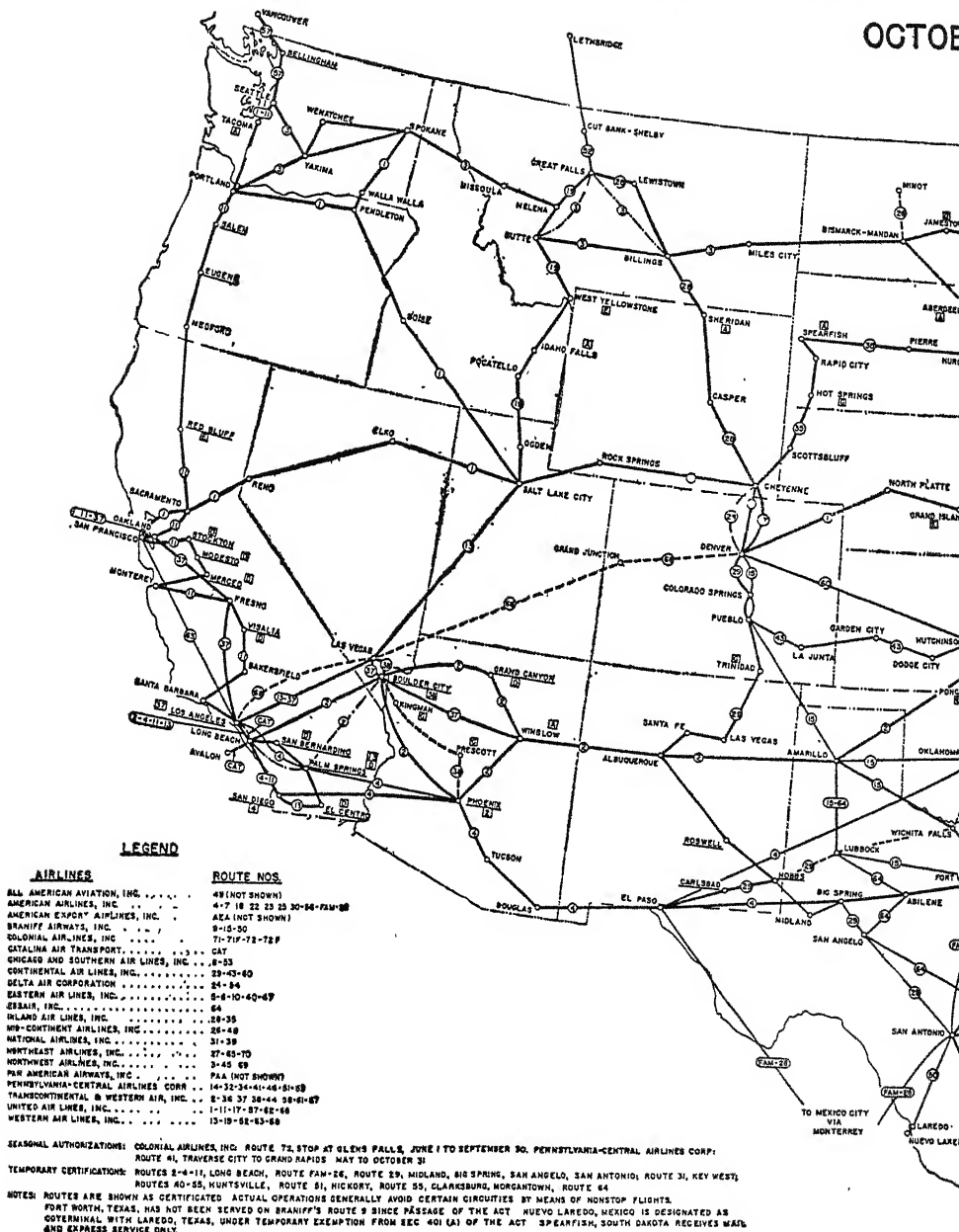
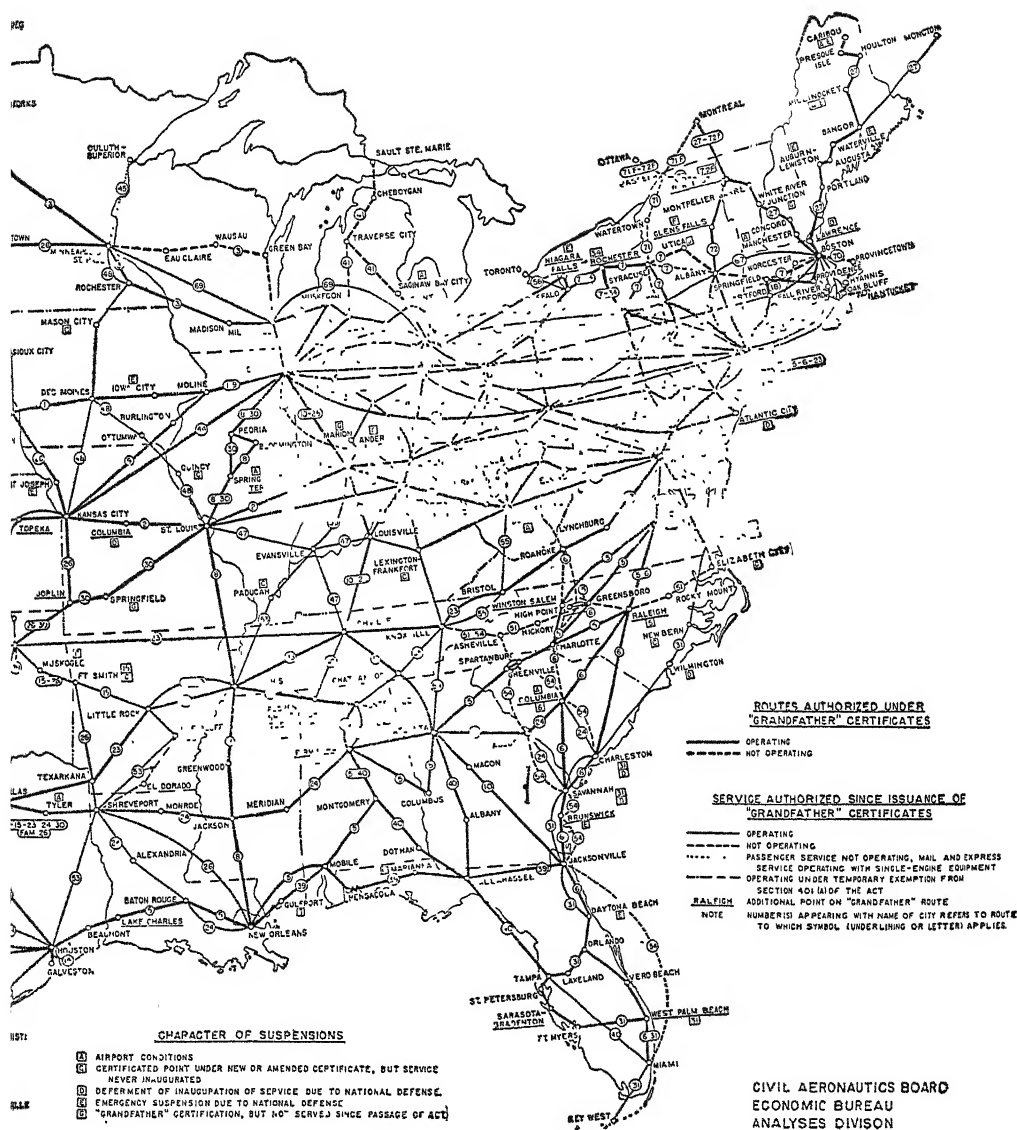


FIG. 55.—Status of Certificated Air Routes,

FIGATED ROUTES NSPORTATION SYSTEM

15, 1945



CIVIL AERONAUTICS BOARD
ECONOMIC BUREAU
ANALYSES DIVISION

U.S. GOVERNMENT PRINTING OFFICE 16-40291

ates Air Transportation System, October 15, 1945.³³

operations. From these reports information should be obtained concerning the extent of operations of this nature.

SOURCES OF INCOME OF AIR CARRIERS

We have previously noted that air carriers at first derived nearly all of their revenues from the transportation of mail but that in recent years the passenger business has been their principal source of revenue. The relative importance of the three sources of revenue—mail, passengers, and express or freight—is shown for recent years in Table XXXIV.

TABLE XXXIV
REVENUES OF DOMESTIC AIRLINES, 1935-45³⁴

Year	Air-Mail Revenues	Percent of Total	Express and Freight Revenues	Percent of Total	Passenger and Excess Bag- gage Revenues	Percent of Total
1935 . . .	\$ 8,836,732	31.30	\$ 512,289	1.81	\$ 18,884,161	66.89
1936 . . .	12,177,929	39.13	804,807	2.59	18,137,405	58.28
1937 . . .	13,165,785	36.22	1,200,584	3.30	21,979,951	60.47
1938 . . .	14,741,972	37.19	1,215,460	3.07	23,679,732	59.74
1939 . . .	16,810,776	35.14	1,437,749	3.00	29,592,659	61.86
1940 . . .	19,547,242	29.79	1,808,799	2.76	44,253,326	67.45
1941 . . .	20,987,996	24.95	2,437,821	2.90	60,681,193	72.15
1942 . . .	23,812,440	22.49	4,398,900	4.15	77,660,884	73.35
1943 . . .	22,519,647	20.17	8,472,464	7.59	80,646,385	72.24
1944 . . .	28,031,183	21.07	7,753,615	5.83	97,245,458	73.10
1945 . . .	35,503,566	28.63	10,653,269	5.59	144,379,853	75.78

ADVANTAGES OF AIR TRANSPORTATION

Air transportation possesses certain outstanding advantages over railroads and other forms of transportation. Each of these will be considered briefly.

SPEED

The first and most important advantage of air transport is speed. Cruising speeds of the major airlines have been from 150 to 200 miles per hour in recent years. This is roughly four times the speed usually maintained by passenger trains.³⁵ The directness of the routes maintained by airlines between important cities further reduces the actual travel time as compared with rail routes.

Possible speeds are much greater than the speeds actually attained by the planes used generally on commercial routes. Technological developments may make practicable and economical even faster speeds than those now maintained.

³⁴ Data from Civil Aeronautics Board, annual reports. Figures do not include the revenue from sources other than those mentioned.

³⁵ Crane, John B., "The Economics of Air Transportation," 22 *Harvard Business Review* 495, 497 (1944).

The advantage of high speed in airport-to-airport flight is often lost, in whole or in part, by the time consumed in getting to and from business centers or residential areas of a city. Airports at some of the larger cities are 15 or more miles from the business district. The average distance of airports from the business district of the city is between 7 and 8 miles.³⁶ It is claimed that the average ground time in connection with an ordinary airline trip is 1 hour and 40 minutes.³⁷

The advantage of speed in air transportation is greatest on long-distance flights. On short trips the time required to get to and from airports is more likely to offset the time saved in flight. It should also be noted that the greater the number of stops at intermediate points the less the time advantage in air transport because of the time consumed in landing, loading and unloading passengers, and taking off.

The speed advantage which air transportation has over surface transportation has made air travel particularly worth while for business trips. The speed advantage of transportation by air is also very important in the transportation of certain kinds of express and freight.

FREQUENCY OF SCHEDULES

A second advantage of air transportation is the frequency with which service can be provided. Since the unit of operation—the plane—is comparatively small, frequent flights can be scheduled even though the total volume of traffic is not large. Railroad trains, on the other hand, whether passenger or freight, cannot under ordinary conditions be scheduled so frequently, since the attainment of economical transportation by rail requires the concentration of traffic in large trainloads. The advantage which air transportation has in this respect is shared with motor transport, where the unit of operation is also small.

AVAILABILITY TO REMOTE AND THINLY SETTLED AREAS

The third advantage of air transport is that it can be made available to many areas which are not provided with surface transportation facilities. The airplane can be used to reach remote and inaccessible places, or areas which are so sparsely settled that the volume of traffic will not support surface transportation agencies. This advantage of air transport arises from the fact that it is less hampered by topography than

³⁶ Nicholson, Joseph L., "Possibilities for Lower Airline Costs," 11 *Law & Contemporary Problems* 452, 455-456 (1946).

³⁷ Burden, Wm. A., *Airports—The Foundation of Aviation Progress*, an address (mimeographed, 1946).

any other form of transport and that it requires no large investment in "way" comparable to that required by railroad and highway transport and sometimes by water transportation.

DISADVANTAGES OF AIR TRANSPORTATION

Air transportation is subject to certain disadvantages, from the point of view of the shipper or traveler, which should be frankly recognized.

HIGH RATES AND COST

The rates and fares charged by airlines are substantially higher than rates and fares of surface transportation agencies. In 1945 the average revenue per passenger-mile received by the domestic air carriers was 5.02 cents.³⁸ The average revenue per passenger-mile received by the railroads in 1944 was 1.875 cents.³⁹ Standard airplane fares have ranged from 4.5 to 5.5 cents per mile in recent years, while the standard rail passenger fares since 1942 have been 2.2 cents per mile in coaches and 3.3 cents in Pullman cars. There is an additional cost of Pullman travel, however, which is not reflected in the basic fare, namely, the amount paid to the Pullman Company for a seat or a berth. Traveling on a train for long distances, furthermore, entails the purchase of meals on the train, whereas the airlines commonly provide free meals in flight. An extra expense of air travel, however, that is not included in the fare, is the cost of getting to and from airports, and this commonly amounts to a dollar or more at each end of the trip.⁴⁰

On freight and express the spread between air and rail rates is greater than the spread in passenger fares. According to a study made by the Association of American Railroads, the average charge for air express in 1942 was 77 cents per ton-mile.⁴¹ Railway express charges averaged 9.1 cents per ton-mile; rail L.C.L. freight averaged 3.8 cents; and freight forwarder charges, 3.5 cents.⁴² Average revenue per ton-mile received by railroads for all freight, carload and less-carload, was less than 1 cent per ton-mile.

Prior to 1943 the basic air express rates were on the basis of 80

³⁸ Civil Aeronautics Board, *Annual Report*, 1945, p. 28.

³⁹ Interstate Commerce Commission, *Annual Report*, 1945, p. 137.

⁴⁰ Association of American Railroads, *Initial Study of Air Transportation* (A.A.R., 1944), p. 34.

⁴¹ *Ibid.*, p. 42.

⁴² *Ibid.*

cents per ton-mile. In 1945 they were about 70 cents per ton-mile.⁴³ Recent air cargo service offered by various airlines, however, provides air transport service at rates varying from 20 cents to 26.5 cents per ton-mile.⁴⁴ Contract carriers by air are said to be carrying freight, however, at 12½ cents a ton-mile, and the contract-carrier division of American Airlines carries some freight for as low as 11 cents per ton-mile.⁴⁵

The high rates generally charged for air transportation service result from the high costs involved. Unit costs of scheduled air transportation over a period of years are shown in Table XXXV. Although these costs are high, it will be noted that a rapid reduction in costs has occurred in recent years. The ability of the air transport industry to lower rates and to develop additional traffic in large quantities will depend in no small degree on its ability to lower costs still further.

TABLE XXXV
AIR TRANSPORT COSTS PER UNIT OF TRAFFIC, 1935-43⁴⁶

Year	Operating Cost per Seat-Mile (Cents)	Percent of 1935 Base	Operating Cost per Pay-Load Ton-Mile (Cents)	Percent of 1935 Base
1935.	5.20	100.0	88.15	100.0
1936.	5.26	101.2	85.27	96.7
1937.	5.00	96.2	76.23	86.5
1938.	4.60	88.5	77.77	88.2
1939.	4.45	85.6	70.62	80.1
1940.	4.03	77.5	60.20	68.3
1941.	3.86	74.2	60.47	68.6
1942.	3.94	75.8	52.95	60.1
1943.	4.75	91.3	44.45	50.4

HAZARD

A second disadvantage of air transport is the comparatively high degree of hazard. This restricts passenger transportation more than it does the transportation of property. Table XXXVI shows the passenger-miles per passenger fatality for airplanes in scheduled operations, and for railroads, in recent years.

⁴³ Branch, Harlee, *Air Transportation Enters Era of Its Greatest Expansion*, an address (mimeographed, 1945).

⁴⁴ See "Air Freight Tariffs Filed with C.A.B. by Delta Line," 78 *Traffic World* 191 (1946); "Airline Reduces Freight Charges," *A.A.R. Weekly Bulletin* No. 611 (April 23, 1946), p. 7; "Air Cargo Rate Cut," *A.A.R. Weekly Bulletin* No. 603 (February 26, 1946), p. 7.

⁴⁵ Reeves, J. W., "Cargo Transportation by Air," 45 *Distribution Age* 28, 29, 76 (1946); Wooten, James A., "Potentials and Predictions," 45 *Distribution Age* 36 (1946).

⁴⁶ Interstate Commerce Commission, Bureau of Transport Economics & Statistics, Statement No. 454, *Some Aspects of Postwar Air and Surface Transportation* (1945), p. 29.

TABLE XXXVI

PASSENGER-MILES PER PASSENGER FATALITY, AIRLINES AND RAILROADS⁴⁷

Year	Domestic Airlines	Railroads
1935 . . .	28,124,401	1,028,305,000
1936 . . .	9,892,085	1,321,164,000
1937 . . .	9,881,797	1,371,956,000
1938 . . .	11,389,177	338,389,000
1939 . . .	42,258,823	841,220,000
1940 . . .	...^a	317,541,000
1941 . . .	28,954,481	864,890,000
1942 . . .	24,490,842	590,627,000
1943 . . .	64,881,174	347,530,000
1944 . . .	41,709,647	400,262,000
1945 . . .	35,382,473	695,651,000

^aNo passenger fatalities in 1940

According to the National Safety Council, comparative passenger fatality rates per 100 million passenger-miles for the several modes of transportation for the 10-year period, 1936-45, were as follows:⁴⁸

	Average Death Rate per 100,000,000 Passenger-Miles (1936-45)
Passenger autos and taxis	3.6
Scheduled air transport planes	2.8
Railroad passenger trains	0.22
Busses	0.21 ⁴⁹

Although air travel compares unfavorably with rail travel so far as safety is concerned, the figures show improvement over a period of years. Air transportation, furthermore, is less hazardous than travel in private automobiles. The fact remains, however, that commercial air transportation is less safe than the other for-hire transportation agencies.

WEATHER INTERFERENCE

A third disadvantage of air transportation is a certain amount of unreliability or uncertainty due to weather interference, which sometimes makes it necessary to omit scheduled flights or to land planes at destinations other than planned. In recent years about 90 percent of scheduled flights have been completed by the domestic airlines.⁵⁰

⁴⁷ Airline figures from C.A.B. annual reports; railroad figures computed from I.C.C. statistics.

⁴⁸ Figures furnished by National Safety Council.

⁴⁹ This figure is based on a six-year average: 1940-45.

⁵⁰ Civil Aeronautics Administration, *Statistical Handbook of Civil Aviation, 1945*, p. 34.

AIR EXPRESS SERVICE

Transportation of express by air began in 1926, soon after the contract air-mail services began. There finally evolved two major express organizations to handle air express. One was an interline association of airlines, about six in number, known as General Air Express. This organization made use of the Postal Telegraph Co. for pick-up and delivery service. In large cities the organization established a sales force, but most of the advertising and solicitation was done by the individual companies in the association. The other organization to handle air express was the Railway Express Agency, which is owned by the railroads. The Railway Express Agency had an arrangement with fourteen airlines for the transportation of air express shipments. Shipments originating on lines affiliated with one of these air express organizations and destined to a point on lines served by the other required two waybills and two separate charges. In addition to these two major air express services, a few air transportation companies carried express independently.

In 1936 all but one of the twenty-three airlines joined the Railway Express Agency system. Transcontinental & Western Air refused to join at that time, but did so in 1937. After this practically all air express was handled by the Express Agency for a number of years.

Agreements between the Express Agency and the airlines, as they stood in 1941, provided for the deduction from air express revenues of the expenses incurred by the Railway Express Agency in handling air express and for a division of the remainder between the airlines and the Agency on the basis of 87½ percent to the airlines and 12½ percent to the Railway Express Agency.⁵¹

The practical monopoly of the air express business by the Railway Express Agency has come under criticism. It has been contended that, since the Express Agency is owned by the railroads, it is not really interested in the development of air express to the point where this service would really compete with railway express service. The Railway Express Agency has strictly denied this accusation, and also points to the various advantages which arise from the conduct of air express by the Railway Express Agency. Among the latter is the fact that the Railway Express Agency has an elaborate organization for pick-up and delivery which it uses for railway express and which it can also use for air express. If the airlines individually or collectively conducted air

⁵¹ *Railway Express Agency, Grandfather Certificate*, 2 C.A.B. 531, 532 (1941).

express service independently of Railway Express, they would find it necessary to set up a "ground" organization to provide pick-up and delivery and would have to maintain offices for the receipt and billing of shipments. It is also pointed out that the Railway Express Agency provides a one-company service. If service were provided independently of Railroad Express Agency, either a cooperative organization would have to be created by the airlines or arrangements for through routes and joint rates and for the division of revenues would have to be worked out. Another advantage of the present arrangement is that the Railway Express Agency is in a position to forward shipments by rail to expedite delivery when flight cancellations interfere with the movement of shipments by air. Lastly, the Railway Express Agency has offices at many points not served by airlines; hence it can better provide air express service to and from points not served directly by airlines than the latter could provide either individually or collectively. It has been estimated that 30 percent of the air express shipments move part of the distance on trains, either because they move to or from points not on airlines or because they are sent by rail to expedite delivery when flight cancellations occur.⁵²

MODIFICATION OF AIR EXPRESS CONTRACTS

In 1939 the Civil Aeronautics Board instituted an investigation of the contracts between the Railway Express Agency and the airlines to determine whether any of the provisions were adverse to the public interest. As a result of this proceeding, the Board suggested modifications of the contracts in certain respects.⁵³ Three provisions in the contracts were found objectionable. These were: (1) that the air carrier would not accept express business from any person other than the Express Agency; (2) that the Express Agency would not make an agreement with another air carrier for similar service except under certain conditions; and (3) that air express rates should not be reduced to a point below twice the rail express rates without the consent of the Express Agency. New contracts entered into by the Express Agency and the airlines eliminated the objectionable features.

The removal of the first provision should permit greater freedom in the establishment of competing services. The third provision mentioned above was often pointed out as evidence that the Express Agency

⁵² Association of American Railroads, *op. cit.*, p. 43.

⁵³ *Railway Express Agreements*, 4 C.A.B. 157 (1943).

was interested in maintaining high air express rates in order to prevent air express from becoming too competitive with railway express. The Board said that the provision in the contract had not been of practical importance since air express rates had been maintained by the airlines at a point higher than twice the rail express rates. The Board wisely held, however, that the provision should be eliminated "in order that air express rates could find their own proper level without regard to those being charged for the transportation of express by rail."⁵⁴

INDEPENDENT AIR FREIGHT SERVICE

In recent years a number of the airlines have established an air freight service which is independent of the Railway Express Agency. The service seems to be designed for shipments of somewhat larger size than those which customarily move via air express. The shipments frequently move in cargo planes rather than on planes carrying mail and passengers also, and the rates are lower than those maintained by air express.

In addition to the air freight service established by regularly scheduled airlines, there is a growing amount of service provided by non-scheduled carriers and contract carriers. Since the war many new organizations have been set up to engage in this type of business.

CHARACTERISTICS OF AIR FREIGHT AND EXPRESS TRAFFIC

As might be expected, the traffic which moves by air consists of articles having a high value and traffic for which speed is highly impor-

TABLE XXXVII
COMPOSITION OF AIR EXPRESS HANDLED BY RAILWAY EXPRESS
AGENCY, APRIL, 1941⁵⁵

Articles	Percent of Total Shipments
Machinery and hardware	23.26
Printed matter	15.11
Store merchandise	13.39
Valuables	8.25
Electros and matrices	6.11
Transcription records and radio parts	4.53
News photos	4.42
Freight manifests	4.36
Motion-picture films	4.32
Cut flowers	3.63
Jewelry	2.60
Personal baggage	2.19
All others	7.86

⁵⁴ *Ibid.*, p. 158.

⁵⁵ Sorrell, L. C., "Prospective Cargo Traffic, Volume, Rates & Service," in *Prospects and Problems in Aviation* (Chicago, Chicago Association of Commerce, 1945), p. 99.

tant. An analysis of the commodities carried by air express reveals this to be the case. Table XXXVII shows the nature of the articles carried by air by the Railway Express Agency in the month of April, 1941.

From the nature of the commodities shipped by air express one would expect the size of individual shipments to be small. The average weight of air express shipments in 1942 was 15.45 pounds.⁵⁶

No analysis of air freight carried by the airlines independently of the Railway Express Agency is available, but the lower rates charged would indicate that commodities of somewhat lower value would make use of this service.

AIR FREIGHT AND EXPRESS RATES

Mention has already been made of the high level of air express and freight rates. Certain other features of these rates should be pointed out.

Much less use is made of freight classification by airlines than by other transportation agencies. Railroads and motor carriers, we have seen, maintain an elaborate system of freight classification, with widely varying rates on the different classes of freight. The air express service provided by Railway Express Agency takes all commodities, with few exceptions, at the same basic rates. One exception consists of newspapers, which have been given 60 percent of the regular rate.

Although air express handled by the Railway Express Agency is substantially on a one-class basis, a rule is maintained to the effect that 400 cubic inches are considered as a pound regardless of the actual weight. Higher rates on light and bulky shipments are provided in this manner instead of by placing such articles in separate and higher-rated "classes," as is done by railroads and motor carriers. The airline method of dealing with this matter is not new, however, since steamship lines have long made use of the same device to some extent.

In the air freight service maintained by the airlines independently of the Railway Express Agency, freight classification has been used in varying degree, but not so extensively as in the railroad and motor-carrier field. The American Airlines air freight service which was established in 1944 made use of a freight classification in which articles were classified into four classes. In addition, commodity rates were provided on certain articles. In 1946, however, American Airlines announced a new freight-rate structure which eliminated the four classes of freight and established a one-class basis.⁵⁷

⁵⁶ *Ibid.*, p. 87.

⁵⁷ *A.A.R. Weekly Bulletin* No. 611 (April 23, 1946), p. 7.

Another feature of air express and freight rates has been the use of graduated rates, that is, rates that vary in cents per pound or per hundred pounds with the size of the shipment. Thus the American Airlines rate structure announced in 1946 provided rates averaging 26.5 cents per ton-mile on shipments weighing from 100 to 499 pounds, 25.6 cents on shipments weighing 500 to 999 pounds, 24.7 cents on shipments weighing 1,000 to 1,999 pounds, 23.0 cents on shipments from 2,000 to 2,999 pounds, and 21.2 cents on shipments weighing 3,000 pounds and over.⁵⁸ This practice is not unknown in the railroad and motor-carrier field, but it seems to have been established as a general characteristic of the rate structure in the air-carrier field.

PROFITABLENESS OF AIRLINE OPERATIONS

The commercial air transport industry as a whole has not operated on a profitable basis until recent years. Table XXXVIII shows the ratio of operating revenues to operating expenses of domestic airlines from 1935 to 1945. When this figure is below 100, operating costs are not being met; when it exceeds 100, a net operating income appears.⁵⁹

TABLE XXXVIII
RATIO OF REVENUES TO EXPENSES OF DOMESTIC AIR CARRIERS, 1935-45⁶⁰

Year	Ratio of Revenues to Expenses (Percent)
1935	87.44
1936	97.70
1937	99.59
1938	96.39
1939	103.03
1940	111.90
1941	104.77
1942	115.37
1943	137.22
1944	124.91
1945	129.21

SUBSIDY TO AIR TRANSPORTATION

The railroads take the position that air transportation is subsidized and that shippers and travelers therefore do not pay such high rates and fares as would be necessary if the industry were self-supporting. The

⁵⁸ *Ibid.*

⁵⁹ It should be noted that this ratio is that of revenues to expenses and should not be confused with the "operating ratio," ratio of operating expenses to operating revenues, which is commonly used to indicate the relation between revenues and expenses of railroads and motor carriers.

⁶⁰ From annual reports of the Civil Aeronautics Board.

subsidy is alleged to take place in three ways: (1) airlines are given free use of the airways which are established and maintained by the Federal Government; (2) airlines make very small and inadequate payment for the use of publicly owned airports; and (3) the Federal Government has paid very generous, if not excessive, amounts to the airlines for the transportation of mail. Each of these possible forms of subsidy will be considered in turn.

It is true that the airlines make no payments for the use of the airways, and to this extent it may be said that air transportation is subsidized. The Board of Investigation and Research study of public aids to transportation agencies found that the scheduled air carriers' share of airways costs was \$4,783,000 in 1941 and aggregated \$34,809,000 for the period 1925 to 1941.⁶¹ The sum is determined by taking the expenses of operating and maintaining the airway system, together with interest on investment in the airways and depreciation or amortization of investment, and determining the share of such costs which may be charged to scheduled air carriers on the basis of the use which they make of the airways in comparison with other users.

Airlines do make payments for the use of publicly provided airports, but it is generally conceded that they do not pay their share of airport costs. The Board of Investigation and Research study reached the conclusion that the portion of annual costs of publicly owned airports assignable to scheduled air carriers over the period 1926-40 aggregated \$27,445,000. Payments made for the use of airports by scheduled air carriers amounted to \$5,103,000, and the net public aid therefore amounted to \$22,342,000 over the period.⁶² The computation of annual airport costs, as in the case of airways, included maintenance and operation, interest on investment, and depreciation or amortization of investment.

AIR-MAIL PAYMENTS AND SUBSIDY

There has been some misunderstanding about the relation between air-mail payments and subsidies to the airlines. It is sometimes assumed that the entire sum paid by the Government for the transportation of air mail constitutes a subsidy, but this ignores the fact that the Government is receiving a valuable service for the payments made. Again, it is sometimes claimed that the subsidy is the difference between the postal receipts from air mail and the sums which the Government pays the air-

⁶¹ *Op. cit.*, p. 480.

⁶² *Ibid.*, p. 503.

lines for transporting the mail. But an excess of payments to the airlines over the air-mail postage receipts would only prove that air mail is subsidized, not that air transportation is subsidized. In other words, such an excess of payments to the air carriers would show that the air-mail branch of the postal service does not pay its own way. And an excess of air-mail postage receipts over payments to the air-mail contractors would merely prove that the Government was making a profit from this branch of the postal service.

The determination of the amount of subsidy in air-mail payments to the airlines involves a separation of costs between the air-mail service and the other services of the airlines and a comparison of the costs allocated to the air-mail service with the payments which the Government has made to the airlines. The cost allocation involves an apportionment of costs that are incurred in common for mail, passengers, and express. The Federal Coordinator of Transportation study of public aids to air transport placed the amount of subsidy from air-mail payments at \$8,203,000 in 1936. For the period from 1931 to 1938, it placed the aggregate amount of the subsidy from this source at \$64,654,000.⁶³ The Board of Investigation and Research study accepted these findings and found a further subsidy in air-mail payments from 1938 to 1941, inclusive, of about \$50,000,000.⁶⁴

The apportionment of airline costs to air-mail service used in these studies assumed that mail, express, and passengers should each pay a share of the common costs determined by the relative pound-miles of mail, passenger, and express carried. This is probably the only assumption which can be made without opening the door to wide differences of opinion as to what share of the common costs should be borne by the mail. However, if value-of-service factors are to be given consideration in fixing passenger fares, or express rates, or air-mail compensation, the conclusion that passengers, express, and air mail should each contribute a pro rata share of the common expenses does not follow. Certain kinds of railroad freight are not considered subsidized by other freight if considerations of what the traffic will bear require that the rates on it be somewhat lower than fully allocated costs. It might well be that considerations of what the traffic will bear would not permit rates for passengers and express that cover fully allocated costs, and that as a practical matter air mail must contribute a somewhat greater share. No

⁶³ *Public Aids to Transportation*, vol. I, p. 32

⁶⁴ *Op. cit.*, p. 452.

opinion is here expressed that such may be the case, but any determination of the amount of subsidy involved in air-mail payments must recognize that the cost accountant's cost allocations and apportionments must sometimes give way to the limitations imposed by conditions of demand.

Notwithstanding the limitations of any attempt to measure the extent of subsidy to air transportation through air-mail payments, it is evident from a consideration of the methods that have been used to determine the payments to airlines for carrying mail that an element of subsidy has existed and probably does exist at the present time. This is particularly clear if one examines the basis of compensation to air-mail contractors that was provided by the Watres Act of 1930. Under the preceding Act—the Air Mail Act of 1925—the airlines were paid on the basis of the weight, or poundage, of mail carried. The Watres Act set up a system on the basis of the space-mile. That is, compensation was based upon the space provided on the plane for air mail multiplied by the miles flown. Under this system the Postmaster-General could and did contract for space on airplanes irrespective of the actual volume of mail carried. This was a great boon to the lines which carried little mail. In fact, the change to the space-mile basis of compensation was for the purpose of overcoming the losses incurred by air transport companies on weak lines and feeder lines.⁶⁵ That the air-mail payments under the Watres Act were to be open subsidies is revealed by the statements of Postmaster-General Brown. He stated that the policy of the Department was to take such space as might be necessary to keep the airlines from going bankrupt, thus indicating that the space purchased was not to be determined by the amount of space needed for mail.⁶⁶

At the present time the compensation to be received by the airlines for the transportation of mail is determined by the Civil Aeronautics Board in accordance with standards laid down in the Civil Aeronautics Act of 1938. That Act requires that the "need" of the airlines shall be considered in determining air-mail compensation, and it is recognized that payments are made on such basis as may be necessary to keep the airlines going. This means that airlines having little revenue from passengers and express may be paid at a higher rate for transporting

⁶⁵ Fagg, Fred D. Jr., "National Transportation Policy and Aviation," 7 *Journal of Air Law* 155, 167 (1936). See also David, Paul T., *The Economics of Air Mail Transportation* (Washington, The Brookings Institution, 1934), pp. 93-96.

⁶⁶ David, *op. cit.*, p. 99.

mail, while those which derive considerable revenue from passengers and express may be paid less for transporting mail.⁶⁷

CONCLUSIONS CONCERNING SUBSIDY

Although it is impossible to determine the total amount of subsidy or public aid received by the airlines from the three sources indicated, we must conclude that there has been, and probably is, a substantial amount of subsidy or public aid received by air transportation. The problem will receive further attention in a later chapter.⁶⁸

SELECTED REFERENCES

There are two books dealing exclusively with air transportation which contain much information of interest to persons concerned with economic aspects of air transportation, namely, Claude E. Puffer, *Air Transportation* (Philadelphia, Blakiston Co., 1941); and John H. Frederick, *Commercial Air Transportation*, rev. ed. (Chicago, Richard D. Irwin, Inc., 1946).

For treatment of air transportation in general transportation textbooks, see Emory R. Johnson, Grover G. Huebner, and G. Lloyd Wilson, *Transportation: Economic Principles and Practices* (New York, Appleton-Century, 1940), chs. 21-24; Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. VI.

There are two books which contain a wealth of information on the early history of the aviation and air transport industry, namely, E. E. Freudenthal, *The Aviation Business* (New York, The Vanguard Press, 1940); and Henry L. Smith, *Airways, the History of Commercial Aviation in the United States* (New York, Knopf, 1942).

There are several special studies of air transportation which contain much valuable material. These include Association of American Railroads, *Initial Study of Air Transportation*, which is colored somewhat by its sponsorship; J. Parker Van Zandt, "Air Transportation," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 329-354; Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. I, Part II (Washington, Government Printing Office, 1940); Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. 159 (1944), pp. 428-516; and Interstate Commerce Commission, Bureau of Transport Economics and Statistics, *Some Aspects of Postwar Air and Surface Transportation* (Washington, mimeographed, 1945).

There is a collection of papers dealing with various aspects of air transportation published by the Chicago Association of Commerce and entitled *Prospects and Problems in Aviation* (Chicago, 1945). Economic aspects of air transporta-

⁶⁷ For a further discussion of the determination of air-mail compensation see pp. 822-825, *infra*.

⁶⁸ Chapter XXXIV.

tion are discussed in A. W. Currie, "Some Economic Aspects of Air Transport," 7 *Canadian Journal of Economics & Political Science* 13 (1941); and John B. Crane, "The Economics of Air Transportation," 22 *Harvard Business Review* 495 (1944); and Irston R. Barnes, "The Economic Role of Air Transportation," 11 *Law and Contemporary Problems* 431 (1946).

Detailed information about airports may be found in Civil Aeronautics Authority, *Airport Survey*, 76th Cong., 1st sess., House Doc. No. 245 (1939); and in Civil Aeronautics Administration, *National Airport Plan*, 78th Cong., 2d sess., House Doc. No. 807 (1945). Legal problems in connection with airports are treated in Charles S. Rhyne, *Airports and the Courts* (Washington, National Institute of Municipal Law Officers, 1944).

There are many valuable articles on air transport in the *Journal of Air Law and Commerce* and the *Air Law Review*, but publication of both of these journals, unfortunately, has been discontinued.

CHAPTER XXXIII

REGULATION OF AIR TRANSPORTATION

THE present system of Federal regulation of air transportation dates from 1938, when the Civil Aeronautics Act was passed. Prior to 1938, however, there were three statutes which imposed a limited amount of regulation on the industry by the Federal Government.

REGULATION PRIOR TO 1938

The first of these statutes was the Air Commerce Act of 1926, which was referred to in the preceding chapter.¹ This statute, although promotional rather than regulatory in character, did provide for the following matters related to safety regulation: the registration of aircraft; the rating of aircraft as to airworthiness; examination and rating of airmen, navigation facilities, and aviation schools; the rating of airlines and the establishment of minimum safety standards; and the establishment of air traffic rules.

A second statute affecting air carriers was an amendment to the Railway Labor Act of 1926. It brought employees of commercial lines under the provisions of that Act, thus providing a certain amount of regulation of labor relations in the industry, and providing the machinery for the settlement of labor disputes.²

The third statute to be mentioned was the Air Mail Act of 1934, amended in 1935. This Act gave certain regulatory powers over air transportation to the Post Office Department and to the Interstate Commerce Commission. Grant of such powers to the Post Office Department grew out of the fact that the airlines transported mail for the Department. The Postmaster General could prescribe the number and frequency of schedules, intermediate stops, and the time of departure of planes carrying mail. He was also empowered to prescribe a system of accounts for air-mail contractors. In addition to these regulatory powers given by the Act, the Postmaster General, because of his power to award air-mail contracts and to extend the routes of existing contractors, exercised in fact a considerable amount of control over the establishment of air transportation routes and in large measure determined who should operate them.

¹ P. 786, *supra*.

² For provisions of the Railway Labor Act, see pp. 255-257, *supra*.

The Air Mail Act also contained a number of provisions relating to incorporate relations of air-mail contractors designed to prevent holding-company control and also to keep the air transport industry independent of other branches of the aeronautics industry, such as the manufacture and sale of planes, the furnishing of materials, accessories, and the like.

Under the Air Mail Act the Interstate Commerce Commission had certain powers and duties in the determination of reasonable rates of compensation to be received by the airlines for transporting mail.

It is unnecessary to review the provisions of the Air Mail Act in detail or to discuss the difficulties encountered in administering them, since the Act was soon replaced by the more comprehensive system of regulation provided by the Civil Aeronautics Act of 1938.

THE CIVIL AERONAUTICS ACT OF 1938

The Civil Aeronautics Act of 1938 set up a system of regulation of air carriers comparable to that which had been provided for railroads and motor carriers. The Act, furthermore, transferred to the newly created Civil Aeronautics Authority the functions formerly carried on by the Department of Commerce under the Air Commerce Act of 1926. These functions included safety regulation and the construction, maintenance, and operation of the Federal airways. The Act also empowered the Civil Aeronautics Authority to determine the compensation to be received by the airlines for the transportation of mail, and relieved the Interstate Commerce Commission of such powers and duties as it had over this matter under the Air Mail Act of 1934 and 1935.

THE CIVIL AERONAUTICS AUTHORITY

The Civil Aeronautics Authority was to be composed of five members, appointed by the President with the advice and consent of the Senate. The term of office was six years; members of the Authority might be removed by the President for inefficiency, neglect of duty, or malfeasance in office. Not more than three members were to be appointed from the same political party.

The Civil Aeronautics Authority was intended to be an independent regulatory agency, comparable to the Interstate Commerce Commission and free from Executive interference so far as its quasi-legislative and quasi-judicial powers were concerned. Within the Authority, however, were set up two agencies which were to be responsible to the President. These were the Administrator and the Air Safety Board.

The Administrator was to be appointed by the President with the advice and consent of the Senate; but unlike the members of the Authority, he might be removed by the President at will. In general, the Administrator was to take over the promotional and developmental functions formerly performed by the Bureau of Air Commerce in the Department of Commerce. These included the establishment and the maintenance and operation of the airways and air navigation facilities, and the collection and dissemination of information relative to civil aeronautics. The Administrator might also exercise such powers and duties as were assigned to him by the Authority.

The Air Safety Board consisted of three members appointed by the President with the advice and consent of the Senate. The Board had no regulatory powers other than the power to make rules and regulations governing the reporting of accidents involving aircraft, and these were subject to the approval of the Authority. The Air Safety Board was a fact-finding body set up to investigate aircraft accidents and to make recommendations to the Authority concerning measures to prevent accidents.

Congress was very careful to make the Air Safety Board independent of the five-man regulatory body or of the Administrator. This was because there had been some criticism of the investigation of accidents by the Department of Commerce under the Air Commerce Act of 1926. It was felt that the investigation of accidents should not be by the agency which made the safety rules or which provided and operated the airways. An independent body, it was thought, would be less likely to gloss over any failure to make and enforce adequate safety rules or failure to have provided and properly operated aids to navigation on the airways.

Some confusion arose because the term Civil Aeronautics Authority could be used in two senses. It might be used to designate either the five-man regulatory body or the over-all organization which included the regulatory agency, the Administrator, and the Air Safety Board.

REORGANIZATION OF 1940

Important changes in organization of the Authority, using that term in the broad sense, were made as a result of two Executive orders of President Roosevelt in 1940. These changes were as follows:

- (1) The name of the five-man regulatory body was changed from "Civil Aeronautics Authority" to "Civil Aeronautics Board."

(2) The Administrator became the Administrator of Civil Aeronautics.

(3) Both the Civil Aeronautics Board and the Administrator of Civil Aeronautics were placed in the Department of Commerce. The Civil Aeronautics Administrator was made responsible to the Secretary of Commerce, but the Civil Aeronautics Board was to retain its complete independence without interference from the Secretary of Commerce. It was sometimes said that the regulatory body was placed in the Department of Commerce for "housekeeping purposes" only.

(4) Certain functions formerly performed by the Authority were transferred to the Administrator of Civil Aeronautics. These included administration of the civilian pilot training program, issuance of aircraft, airmen, and other certificates required in the interest of safety, and the administration of safety regulations, but not the prescription of safety rules and standards.

(5) The Air Safety Board was abolished, and its functions were transferred to the Civil Aeronautics Board.

As a result of these changes, the name "Civil Aeronautics Board" is now applied to the five-man regulatory body. The name "Civil Aeronautics Administration" is the term used in the Department of Commerce to denote the organization built around the Administrator of Civil Aeronautics. The term "Civil Aeronautics Authority" is rarely used but is the proper name to denote the over-all organization, that is, the Civil Aeronautics Board and the Civil Aeronautics Administration.

ECONOMIC REGULATION

We may now turn to a consideration of the system of regulation provided by the Civil Aeronautics Act. In so doing we shall be concerned with the regulation of the business of transporting persons, property, and mail by air, commonly described as "economic regulation," rather than with safety regulation. The latter is important but beyond the scope of the present volume. The provisions of the Act relating to economic regulation are largely found in Title IV of the Act. Economic regulation is patterned on the system of regulation of railroads and motor carriers, although there are significant differences. Economic regulation is provided only for common carriers by air and carriers of mail, while safety regulation extends to all flying, including that by common carriers and contract carriers, and to private flying, also. At first glance the Act would seem to apply economic regulation to "air

carriers" rather than only to common carriers by air, but the definitions of "air carrier" and "air transportation" are such as to confine economic regulation to either common carriers³ or to other carriers of mail. Thus contract carriers by air are not regulated at the present time.

The regulatory provisions of the Act may be summarized as follows:

(1) Certificates of public convenience and necessity are required of air carriers, although an appropriate "grandfather clause" protects carriers in operation from May 14, 1938, to the date the Act became effective. When a certificate authorizes the transportation of mail, an air carrier must provide necessary and adequate facilities therefor and must transport mail whenever required by the Postmaster General.

(2) Rates and fares are to be published, and tariffs containing such charges must be open to public inspection and filed with the regulatory authority. Strict observance of published rates is required.

(3) Notice of 30 days is required of changes in rates, and the regulatory body has power to suspend proposed changes in rates for 180 days.

(4) Carriers are to charge just and reasonable rates and to provide safe and adequate service, equipment, and facilities.

(5) Undue preference and prejudice are prohibited.

(6) The regulatory agency has power to prescribe the "lawful" rate or charge in lieu of a rate found unreasonable or otherwise unlawful. Or it may prescribe the maximum or minimum, or the maximum and minimum rate. On overseas traffic⁴ the regulatory authority may prescribe the maximum or minimum, or the maximum and minimum, but not the exact rate.

(7) The abandonment of routes is prohibited except upon approval of the regulatory authority.

(8) The regulatory authority may require reports from air carriers and prescribe the system of accounts.

(9) Consolidation, mergers, and acquisitions of control are under the strict control of the regulatory agency.

(10) Interlocking relationships between air carriers, or between air carriers and other common carriers, or between air carriers and other branches of the aeronautics industry, are prohibited unless approved by the regulatory authority.

³ See *Railway Express Agency, Grandfather Certificate*, 2 C.A.B. 531, 535-536 (1941).

⁴ "Overseas traffic" means traffic between points in the United States proper and points in territories or possessions of the United States, or between two points in possessions or territories of the United States.

(11) Pooling or other agreements between the air carriers, or between air carriers and other carriers, must be filed with and approved by the regulatory body.

(12) The regulatory authority is empowered to investigate alleged "unfair or deceptive practices or unfair methods of competition in air transportation" and to order the carriers to cease and desist from any such practices. This power extends to foreign air carriers operating to and from points in the United States.

In addition to the provisions enumerated above, there are certain other provisions of the Act which should be mentioned.

POWER OF EXEMPTION

An unusual provision of the Act is that the regulatory authority is empowered to exempt any air carrier from any of the provisions of Title IV, with minor exceptions, if it finds that enforcement of such provisions would be an undue burden on the carrier.

JOINT BOARD

Another novel provision of the Act provides that cases involving through services and joint rates and fares established with carriers under the jurisdiction of the Interstate Commerce Commission may be referred to a Joint Board consisting of an equal number of members from the Interstate Commerce Commission and the Civil Aeronautics Authority or Board. In such cases the Joint Board has the same power that the Board would have.

RULE OF RATE-MAKING

The Act contains a rule of rate-making, comparable to Section 15a of the Interstate Commerce Act and to a somewhat similar section in Part II of the Interstate Commerce Act relating to motor carriers. In the Civil Aeronautics Act the rule of rate-making reads as follows:

In exercising and performing its powers and duties with respect to the determination of rates for the carriage of persons or property, the Authority shall take into consideration, among other factors—(1) The effect of such rates upon the movement of traffic; (2) The need in the public interest of adequate and efficient transportation of persons and property by air carriers at the lowest cost consistent with the furnishing of such service; (3) Such standards respecting the character and quality of service to be rendered by air carriers as may be prescribed by or pursuant to law; (4) The inherent advantages of transportation by aircraft; and (5) The need of each air carrier for revenue sufficient to enable such air carrier, under honest, economical, and efficient management, to provide adequate and efficient air carrier service.

DECLARATION OF POLICY

The Civil Aeronautics Act contains a Declaration of Policy which makes it evident that Congress was desirous of encouraging the development of air transportation and did not intend that regulation should be used for the purpose of hindering its development in the interest of older transportation agencies. Since the Declaration of Policy expresses the will of Congress with respect to the policies which should govern the administration of the Act and is a direct charge to the regulatory agency, it may well be quoted in full. The section reads as follows:

In the exercise and performance of its powers and duties under this Act, the Authority shall consider the following, among other things, as being in the public interest, and in accordance with the public convenience and necessity—

(a) The encouragement and development of an air-transportation system properly adapted to the present and future needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense;

(b) The regulation of air transportation in such manner as to recognize and preserve the inherent advantages of, assure the highest degree of safety in, and foster sound economic conditions in, such transportation, and to improve the relations between, and coordinate transportation by, air carriers;

(c) The promotion of adequate, economical, and efficient service by air carriers at reasonable charges, without unjust discrimination, undue preferences or advantages, or unfair or destructive competitive practices;

(d) Competition to the extent necessary to assure the sound development of an air-transportation system properly adapted to the needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense;

(e) The regulation of air commerce in such manner as to best promote its development and safety; and

(f) The encouragement and development of civil aeronautics.

DIFFERENCES BETWEEN AIR AND RAIL REGULATION

We have noted that air carrier regulation has many of the features of railroad regulation. It is desirable, however, to call attention to some of the more important differences.

(1) The Civil Aeronautics Board, as has been mentioned, may exempt carriers or classes of carriers from regulation. The Interstate Commerce Commission does not have equal authority to make broad exemptions from the provisions of the Interstate Commerce Act.

(2) The Civil Aeronautics Act contains no long-and-short-haul clause.

(3) There is no control over the issuance of securities of air carriers. The Civil Aeronautics Board, however, has recommended that it be given control over the issuance of securities by air carriers in order to prevent the development of unsound capital structures.⁵

(4) The Civil Aeronautics Act gives the Civil Aeronautics Board broad authority to prevent air carriers from engaging in "unfair or deceptive practices or unfair methods of competition." There is no similar provision in the Interstate Commerce Act.

(5) The Civil Aeronautics Board does not have power to award reparations to shippers for injury resulting from the charging of unreasonable or otherwise unlawful rates.

STATE REGULATION

The regulation of air transportation described up to this point has been Federal regulation. There is some regulation of air transportation, however, by the States. In discussing State regulation it is necessary to distinguish between safety regulation and economic regulation, since the line between State and Federal jurisdiction at the present time is different in the two fields of control.

By means of a broad definition of "air commerce" the safety provisions of the Civil Aeronautics Act apparently extend to the "navigation of aircraft within the limits of any civil airway or any operation or navigation of aircraft which directly affects, or which may endanger safety in, interstate, overseas, or foreign air commerce."⁶ It will be observed that any navigation of aircraft on a civil airway, or any flying which might endanger the safety of interstate, overseas, or foreign air commerce, comes under the Federal Act. The Civil Aeronautics Board has power to regulate all flying, interstate or intrastate, to the extent that may be necessary to protect interstate, overseas, or foreign air commerce. This greatly restricts the authority of the States in safety regulation—at least if State regulations should conflict with Federal regulations.

The power of the Federal Government to prohibit the flying on any Federal airway of a plane which does not have a Federal airworthiness certificate has been upheld, even when applied to a purely intrastate flight and even though the craft was licensed by the State in which

⁵ *Annual Report, 1942*, p. 14. This recommendation has been renewed in subsequent annual reports.

⁶ Section 1 (3).

it was flown.⁷ In another case the power of the Federal Government to prohibit intrastate flight unless both the plane and the pilot held a Federal certificate was upheld even when the flight was not on a Federal airway.⁸

Notwithstanding the application of the Federal safety rules and regulations to all flying, many States have enacted legislation relating to the certification of aircraft and of pilots and to other matters affecting safety. In some cases the State imposes somewhat stricter safety standards than are required by the Federal authority.

In the field of economic regulation the Federal Government's regulation extends to interstate, overseas, and foreign transportation and to transportation of the mails. Except for transportation of mail, therefore, Federal regulation of purely intrastate transportation is not attempted. This leaves the field of intrastate commerce by air to the jurisdiction of the States. It is quite possible that the Shreveport doctrine⁹ would be applied if intrastate regulation should interfere with effective Federal regulation, since there is no provision in the Civil Aeronautics Act which specifically rules out its application to air transportation, such as is found in Part II of the Interstate Commerce Act, which rules out its application to motor carriers.¹⁰

There are a number of States which have exercised their jurisdiction over intrastate air commerce and provided some degree of economic regulation. According to a statement of the National Association of Railroad and Utilities Commissioners, there were seven States in 1945 which had specific legislation setting up economic regulation of intrastate air commerce.¹¹ In addition to these there were sixteen States asserting control over intrastate commerce by air under constitutional or statutory provisions relating to the regulation of common carriers or public utilities.¹² Economic regulation by the States has chiefly involved the granting of certificates of public convenience and necessity for intrastate operations.

The air transport industry is somewhat alarmed over the spread of State regulation of air carriers and advocates legislation to give the

⁷ *Rosenban v. United States*, 131 F. (2d) 932 (1942).

⁸ *United States v. Drumm*, 50 F. Supp. 451 (1943).

⁹ See pp. 281-282, *supra*.

¹⁰ See pp. 713-714, *supra*.

¹¹ Alabama, Arkansas, Kentucky, Massachusetts, Rhode Island, Vermont, and Virginia.

¹² These States were Arizona, California, and Oklahoma, where authority was based on constitutional provisions, and Colorado, Illinois, Maryland, Michigan, Montana, Nebraska, Nevada, New Mexico, North Dakota, Pennsylvania, Washington, West Virginia, and Wyoming, where action is based on general statutes.

Federal Government exclusive control. A similar view has been taken by the Civil Aeronautics Board. The National Association of Railroad and Utilities Commissioners is opposed to encroachment on the powers of the States in this field and has sponsored a proposed Uniform State Air Carrier bill providing for economic regulation of intrastate air commerce by the States. Opponents of State regulation fear the complications, delay, and expense if intrastate operations of the airlines are subject to the control of the many States in which they operate. There is also the possibility that State power might be exercised in ways that would interfere with efficient interstate operations or constitute a burden on interstate commerce.¹³

ADMINISTRATION OF THE CIVIL AERONAUTICS ACT

We return now to the Civil Aeronautics Act of 1938 in order to consider the policies which have been evolved in its administration by the Civil Aeronautics Authority and the present Civil Aeronautics Board.

AIR-MAIL COMPENSATION

An important duty of the Civil Aeronautics Board is the determination of the compensation to be received by the airlines for transporting air mail. In fact, most of the rate-making activity of the Board has been in the determination of rates for carrying mail.

The Civil Aeronautics Act requires that in determining the fair and reasonable compensation to be paid an air carrier for the transportation of mail the Board shall take into consideration the "need" of the carrier for compensation sufficient "together with all other revenue of the air carrier" to enable it "under honest, economical, and efficient management, to maintain and continue the development of air transportation to the extent and of the character and quality required for the commerce of the United States, the Postal Service, and the national defense." It is clear that Congress intended the carriers to be paid whatever might be necessary for the carrying of mail to give them adequate revenues. In 1942 the Board said: "The Civil Aeronautics Act has established the rule that where the other revenues of an air carrier do not suffice to meet the expenses of developing and maintaining air transportation as required in the national interest, the air-mail compensation shall be

¹³ For a discussion of this problem see Oswald Ryan, "Economic Regulation of Air Commerce by the States," 31 *Virginia Law Review* 479 (1945); also F. G. Hamley, "Appropriate Areas of State Economic Regulation," 11 *Law & Contemporary Problems* 488 (1946).

given the marginal role, and shall be established at such a level as is necessary to build the total revenues up to the required level.”¹⁴

As the passenger and express business of the airlines has increased, the larger airlines have come to be less dependent on generous payments for the transportation of mail. In 1942 the Board had a number of mail rate cases before it in which the passenger and express business had made the carriers substantially self-supporting. In one of these cases the Board found that the company was making very generous “profits” and said: “It . . . is obvious from these figures that the fixing by us of a fair and reasonable rate of compensation for the transportation of mail by aircraft . . . does not require the allowance of amounts, heretofore frequently necessary in mail rate cases, to permit the carrier to ‘break even’ financially and to make a reasonable profit on its operations.”¹⁵ In this and the related cases the Board came to rely heavily on an allocation of costs between mail and commercial services according to relative pound-miles of transportation performed, although the Board was careful to point out that this was not the only factor to be considered in fixing mail rates.

As a result of these proceedings, the Board came to recognize two kinds of mail rates: the “service” rate for carriers which had attained a condition of self-sufficiency with respect to their commercial operations and which was based largely on an allocation of costs; and a “need” rate, which had to be fixed for carriers which had not attained a condition of self-sufficiency from their commercial operations and which was based on their revenue needs. The “service” rate fixed in these cases was first established on the basis of 0.3 mill per pound-mile, or 60 cents per ton-mile. One member of the Board, however, insisted that these rates were too high and still contained an element of subsidy.¹⁶ In 1944 the Board noted that the “service” rate of 0.3 mill per pound-mile had been fixed for eleven carriers operating 80 percent of the domestic route miles.¹⁷ In 1945 the air-mail rates of four carriers were reduced from 60 cents to 45 cents per ton-mile.¹⁸

There are certain methods used and principles adopted in determining air-mail rates that should be noted.

¹⁴ *Pennsylvania-Central Airlines, Mail Rates*, 4 C.A.B. 22, 51 (1942).

¹⁵ *Eastern Air Lines, Mail Rates*, 3 C.A.B. 733, 752-753 (1942).

¹⁶ See dissenting opinions of Mr. Branch in *Eastern Air Lines, Mail Rate Proceeding*, 3 C.A.B. 733, 761 (1942); *American Airlines, Mail Rates*, 3 C.A.B. 770, 792 (1942); *Pennsylvania-Central Airlines, Mail Rates*, 4 C.A.B. 22, 51 (1942), and other cases.

¹⁷ *Annual Report, 1944*, p. 20.

¹⁸ Civil Aeronautics Board, *Annual Report, 1945*, pp. 9-10.

In the first place, if air-mail compensation is to be determined on the need basis, it follows that a close scrutiny of operating expenses, charges to depreciation, and managerial policies is required in order to protect the public interest. These matters have frequently come in for careful consideration before air-mail rates have been fixed.

Second, the Board does not consider that cost of reproduction is a factor to be considered in determining the rate base. On the contrary, it uses investment as a base. "We believe that the ascertainment of the capital cost of producing the air transportation service requires that the rate of return should be predicated upon the funds which have been actually and legitimately invested in the transportation enterprise rather than upon any valuation of the carrier's property, and we shall continue to adhere to this method in the future as we have in the past."¹⁹

Third, the Board has often held 8 percent to be a reasonable rate of return after Federal income taxes.²⁰

Fourth, the Board has recognized that, because of the small capital investment in airlines relative to the volume of business which they do, any error in estimating either revenues or expenses will make the actual rate of return very much larger, or very much smaller, than the rate deemed fair. In fact, the net operating income might disappear entirely. The accentuated effect on net operating income of any errors in estimates of future revenues and expenses is considered by the Board as a circumstance which should be taken into consideration in determining air-mail rates.²¹

Fifth, in fixing the "service" rate for transporting mail the Board has been inclined to make a uniform rate for all lines, rather than to have different rates for different lines based upon individual-line costs. In one case the Board said: "... it is not our intention, nor do we believe it would be in the public interest, to fix the service mail rate on a cost plus basis by extending to all carriers a uniform or fixed rate of profit on the required investment irrespective of the level of the operating costs."²² The Board pointed out that a uniform service rate "provides added incentive for increased operating efficiency by making the rate of

¹⁹ *American Airlines, Mail Rates*, 3 C.A.B. 770, 789 (1942).

²⁰ *Northeast Airlines, Mail Rate*, 4 C.A.B. 181, 189 (1943); *Colonial Airlines, Mail Rates*, 4 C.A.B. 71, 86 (1942); *All American Aviation, Mail Rate*, 4 C.A.B. 354, 368 (1943).

²¹ See *Pennsylvania-Central Airlines, Mail Rates*, 4 C.A.B. 22, 43 (1942); and *Western Air Lines, Mail Rates*, 4 C.A.B. 441, 456-457 (1943).

²² *Eastern Air Lines, Mail Rates*, 6 C.A.B. 551, 555 (1945).

profit directly dependent upon each carrier's competitive performance as measured by the relation of its costs to the costs of other carriers . . .²³

CERTIFICATE CASES

Among the most important duties of the Board is to dispose of applications for new services. Certificates of public convenience and necessity are required before new routes may be flown or before additional points may be served.

The questions involved in such cases were succinctly stated by the Board in 1941 as follows:

The primary questions to be considered in the disposition of cases involving applications for new service are, in substance, whether the new service will serve a useful public purpose, responsive to a public need; whether this service can and will be served adequately by existing routes or carriers; whether it can be served by the applicant without impairing the operations of existing carriers contrary to the public interest; and whether any cost of the proposed service to the Government will be outweighed by the benefit which will accrue to the public from the new service.²⁴

Applications for new services often result in bitter conflicts between airlines. An application may be for the establishment of a service competitive with another airline. Sometimes there are several applicants for the right to operate over a route, and it may be impracticable to authorize operations by more than one of them because of the limited amount of traffic available. The granting of the certificate to one of the applicants may have certain advantages to the public, while granting it to another line would have other advantages. There is often a conflict between large and small lines, with the question in the background of whether it is in the interest of the public to permit large lines to become larger or to encourage the development of smaller lines.

In considering certificate applications the Board is obviously under some obligation to protect existing carriers from new operations. If Congress had not intended some protection to be given them, it would not have required certificates of public convenience and necessity but would have permitted unrestricted entrance into the industry. One of the objectives of the Act was to prevent excessive competition which would jeopardize the successful operation of the airlines. It must also be recognized that the Government subsidy to airlines through air-mail

²³ *Ibid.*

²⁴ *Delta Air Corp., Service to Atlanta and Birmingham*. 2 C.A.B. 447, 452 (1941).

payments would be increased if an attempt were made through air-mail payments to keep more lines in operation than the traffic would support. The effect of proposed operations on other carriers is always a factor which receives careful consideration in certificate cases.

The principle that existing carriers are entitled to some protection from new operations that would jeopardize their earnings may come into conflict with another principle, namely, that a certain amount of competition between air carriers is in the public interest. This brings us to the important question of the extent to which competition in the industry should be encouraged.

COMPETITION VERSUS MONOPOLY

That Congress wanted some degree of competition to be maintained in the air transport industry is clear from two provisions of the Civil Aeronautics Act. The Declaration of Policy, previously quoted, mentions "competition to the extent necessary to assure the sound development of an air transportation system properly adapted to the needs of the foreign and domestic commerce of the United States" as in the public interest and in accordance with the public convenience and necessity. The other provision of the Act which evidences a desire on the part of Congress to preserve competition in the industry is found in the sections dealing with the consolidation and combination of airlines. The Act provides that the Board "shall not approve any consolidation, merger, purchase, lease, operating contract, or acquisition of control which would result in creating a monopoly or monopolies and thereby restrain competition. . . ."²⁵

The Board is clearly in favor of permitting competitive services to be established where there is traffic enough to warrant it. As the volume of air travel has increased, the possibility of instituting competitive services over many routes without jeopardizing existing carriers has increased, and a number of certificates have been granted authorizing the establishment of new services which were competitive with previously established operations. In one case the Board said:

While no convenient formula of general application may be available as a substitute for the Board's discretionary judgment it would seem to be a sound principle that, since competition in itself presents an incentive to improved service and technological development, there would be a strong, although not conclusive, presumption in favor of competition on any route which offered

²⁵ Section 408 (b).

sufficient traffic to support competing services without unreasonable increase of total operating cost.²⁶

The Board believes that competition is desirable as a means of stimulating good service, and insuring rapid development of the industry.

EXPANSION OF SMALL LINES

Not only is the Board concerned with the maintenance of competition between airlines, but it has shown a tendency to favor the building up or expansion of the smaller lines in preference to a further increase in the size of the larger ones.²⁷ This policy, if continued, would seem to lead to a gradual modification of the situation mentioned in the preceding chapter in which a few carriers account for a large proportion of the total business.²⁸ Although the Board has shown a disposition, both in certificate cases and in unification cases, to favor the expansion of the smaller airlines rather than a further enlargement of the large ones, it has been careful to avoid the impression that it has determined the "optimum size" of firms in the air transport industry or that it will refuse, under all conditions, to permit further expansion of large lines. In refusing to authorize the acquisition of control of Mid-Continent Airlines by American Airlines, the Board said:

By these findings we mean to intimate no opinion that American is too big, in an absolute sense, nor to infer any predetermination not to permit, under appropriate circumstances, any further expansion or development of the American system. We make no attempt to calculate an optimum size for an air carrier, nor do we express a belief that such a fixed and invariable standard exists in so dynamic a field as air transportation.²⁹

The Board also pointed out that it did not want to leave the impression that it was committed to a policy of seeking "an ultimate goal of parity among air carriers."³⁰ Notwithstanding this latter statement, the Board is well aware of the difficulties and problems that result from disparities in size of carriers in the air transport field, as elsewhere in the transportation world.

²⁶ *Transcontinental & Western Air, Additional North-South California Services*, 4 C.A.B. 373, 375 (1943).

²⁷ E.g., *Continental Air Lines, Denver-Kansas City Service*, 4 C.A.B. 1 (1942); *Western Air Lines Denver-Los Angeles Service*, 6 C.A.B. 199 (1944); *Colonial Airlines, Atlantic Seaboard Operation*, 4 C.A.B. 552 (1944).

²⁸ P. 795, *supra*.

²⁹ *American Airlines, Inc.—Acquisition of Control of Mid-Continent Airlines, Inc.*, — C.A.B. — (1946) (volume and page not available at this time).

³⁰ *Ibid.*

FEEDER AND LOCAL AIRLINE SERVICE

Because of the large number of applications before it for the establishment of local and feeder airline service, the Board instituted a general investigation of the problem in 1943. The investigation brought out the fact that the traffic potential at the small cities was very limited and that local and feeder airlines would be competing with highly developed surface transportation agencies in a field in which the outstanding advantage of air transport, namely speed, would count for the least. Air transport fares, furthermore, would have to be at a comparatively high level in local and feeder service. Failure of local and feeder passenger and express traffic to develop, furthermore, would tend to throw a substantial burden on the Government in the form of generous compensation for the transportation of mail by such lines. In view of this situation the Board decided to confine authorizations for local and feeder service to such operations as could show a justifiable expectation of success at a reasonable cost to the Government, and to grant certificates for a three-year experimental period in order to provide the basis for later judgment as to whether the service could be made self-supporting without throwing too great a burden on the Government in the form of air-mail payments.³¹ The policies announced in the general investigation were reiterated and applied in the first group of feeder and local service applications which were disposed of by the Board.³²

EXEMPTION OF NONSCHEDULED CARRIERS

Under its power to exempt any carriers or class of carriers from economic regulation the Civil Aeronautics Authority issued an order in 1938 exempting air carriers from regulation who were engaged solely in nonscheduled operations. Owing to the rapid increase in the number of such operators and the possibility that some carriers were evading regulation by claiming to be within the exemption when properly not, the Civil Aeronautics Board instituted an investigation of nonscheduled carriers in 1944.

As a result of its investigation the Board found that some services performed by exempt carriers were "comparable to those offered by certificated air carriers," although purporting to be within the exemption. In two related proceedings the Board found that the operations of

³¹ *Investigation of Local, Feeder, and Pick-Up Air Service*, 6 C.A.B. 1 (1944).

³² *Service in the Rocky Mountain States Area*, — C.A.B. — (1946) (not yet printed).

certain carriers claiming exemption were not properly within the exemption.³³

In the general investigation the Board decided to continue the exemption of nonscheduled carriers from economic regulation, except from the provisions relating to unfair and deceptive competitive practices, the provisions relating to the filing of reports, and the sections of the Act requiring compliance with labor legislation. The Board expressed the view, however, that to fall within the exempted class the service offered "must be so characterized by variations as to be free from the suggestion of a normal, customary, and common course of conduct." The Board proposed, but has not yet adopted, a rule defining nonscheduled air carriers in a more restrictive manner. The proposed rule would provide that more than ten round trips per month between the same two points for a period of two consecutive months would be deemed a scheduled operation. The Board also proposed, but has not yet adopted, a rule requiring the large nonscheduled operators to comply with certain other provisions of the Act. The proposed extension of control over nonscheduled transportation raises important questions concerning the extent to which regulation should be extended to air carriers providing nonscheduled and irregular service.³⁴

REGULATION BY C.A.B. OR I.C.C.

When Congress was considering the enactment of a comprehensive system of regulation for the air transport industry, there was much debate over the question whether regulation should be by the Interstate Commerce Commission or by a separate regulatory body. The Federal Coordinator of Transportation, in 1934, recommended that when regulation of air transportation was undertaken it should be placed in the hands of the Interstate Commerce Commission.³⁵ The Federal Aviation Commission, a body appointed in 1934 to investigate aviation and to recommend to Congress what Congressional action should be taken, recommended regulation by a separate commission.³⁶ President Roosevelt, in transmitting to Congress the report of the Fed-

³³ *Trans-Marine Airlines—Investigation of Activities*, — C.A.B. — (1946); *Paige Airways Investigation*, — C.A.B. — (1946) (not yet printed).

³⁴ For a strong statement to the effect that nonscheduled air transportation should not be regulated at the present time see statement by Henry A. Wallace, Secretary of Commerce, before the Civil Aeronautics Board in Docket No. 1501 (mimeographed, 1946).

³⁵ *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), p. 53.

³⁶ *Report of the Federal Aviation Commission*, 74th Cong., 1st sess., Senate Doc. No. 15 (1935), pp. 53 and 244-245.

eral Aviation Commission, expressed the belief that regulation should be vested in the Interstate Commerce Commission rather than in a separate regulatory body. Later the President changed his position on this question.³⁷ Differences in views on this question delayed action by Congress on bills to regulate air transportation. The final outcome, as embodied in the Civil Aeronautics Act of 1938, was to place regulation in the hands of a separate agency—the Civil Aeronautics Authority. The issue is not dead, however, as the railroads continue to advocate placing air transportation regulation under the Interstate Commerce Commission.³⁸

The principal argument for regulation of air carriers by the Interstate Commerce Commission is that unification of regulation, bringing all forms of transport under the jurisdiction of the Commission, is desirable in order to effect a proper coordination of the various modes of transport. If the different modes of transport are under separate regulatory agencies, each agency tends to be partial to that mode of transport which is under its control. But even if no such partiality exists, there is no agency to handle matters that involve conflicts between two or more modes of transport and to resolve the conflict by the standard of public interest. The importance of this consideration in determining where air transport regulation should be placed depends entirely upon the extent to which there are or will be conflicts of interest between airlines and other modes of transport.

On the other side of the controversy we find the argument that the Interstate Commerce Commission is overworked and preoccupied with the duty of regulating other forms of transportation and that it could not give proper attention to the problems of air transport. This difficulty could be overcome by changes in the organization of the Commission and enlargement of its staff.

It is also argued that the Commission and its staff is not acquainted with the specialized problems of the air transport industry. This situation could also be overcome by the creation of an expert staff with experience in the air transport field. The same problem was encountered when the Commission assumed jurisdiction over motor carriers and water carriers, and it seems to have been handled without much difficulty.

³⁷ See Rhyne, C. S., *Civil Aeronautics Act Annotated* (Washington, National Law Book Co., 1939), pp. 52-53.

³⁸ Association of American Railroads, *National Transportation Inquiry* (1946), p. 12.

The argument that the Interstate Commerce Commission is "railroad-minded" and would not give air transportation a fair break was undoubtedly a large factor in explaining the opposition of the air transport industry to regulation by the Interstate Commerce Commission. The same argument was used against the regulation of motor carriers and water carriers by the Commission. Experience has not borne out the fears that the Commission would fail to regulate fairly all modes of transportation placed under its jurisdiction.

It has also been contended that the Commission, although not railroad-minded, would nevertheless follow precedents from the regulation of railroads and motor carriers that were not wholly suitable in the regulation of air carriers. There is no reason to believe that such differences in air transportation as may require different treatment or different policies could not be impressed upon the Commission by parties to proceedings before it, or that the Commission would be unable to appreciate such differences.

One of the arguments that was probably most effective in bringing about the final decision not to place regulation of air carriers in the hands of the Commission was the difficulty that would have been created in connection with safety regulation. If the Interstate Commerce Commission were to confine its control over safety matters to commercial flying, there would be duplication of effort in safety regulation, since safety regulation in noncommercial flying would have to be done by someone, presumably by the Department of Commerce. If, on the other hand, the Commission were given control of all safety regulation, it would be extending its traditional functions which have been primarily concerned with for-hire transportation, and assuming a responsibility which it was not anxious to assume.

Lastly, it may be said that if all matters relating to air transportation, such as the operation and maintenance of airways, participation in airport building, and other promotional and developmental activities, are to be centralized in one agency, it would be inappropriate to give the Interstate Commerce Commission these duties and functions, since it is primarily a regulatory body and not an administrative body. The actual separation which has been made between regulatory functions and promotional or developmental functions, by assigning the former to the Civil Aeronautics Board and the latter to the Administrator of Civil Aeronautics, suggests that the regulatory function could be placed

in the Interstate Commerce Commission while leaving the other functions within the Department of Commerce.

Since Congress has decided the issue for the time being at least, and since the present system of regulation is operating satisfactorily, it does not seem that there is any present need for abolishing the Civil Aeronautics Board and transferring its duties to the Interstate Commerce Commission. As air transportation continues to develop, however, and becomes more and more competitive with other forms of transport, a reconsideration of the question may become necessary in order that a system of regulation may be devised in which conflicts between the different modes of transport may be resolved in accordance with the public interest.³⁹

SELECTED REFERENCES

Claude E. Puffer, *Air Transportation* (Philadelphia, Blakiston, 1941), is a detailed discussion of the Civil Aeronautics Act of 1938 and of its administration, together with an analysis of experience prior to the enactment of the 1938 legislation. Regulation is also discussed extensively in John H. Frederick, *Commercial Air Transportation*, rev. ed. (Chicago, Richard D. Irwin, Inc. 1946), chs. IX-XV. For other discussions of air transportation see G. Lloyd Wilson, *Air Transportation and Regulation* (Chicago, Traffic Service Corporation, 1940), chs. IV-VI; Emory R. Johnson, Grover G. Huebner, and G. Lloyd Wilson, *Transportation: Economic Principles and Practices* (New York, Appleton-Century, 1940), ch. 25; and Stuart Daggett, *Principles of Inland Transportation*, 3d ed. (New York, Harper's, 1941), ch. XXXIV.

Experience with regulation prior to the Civil Aeronautics Act of 1938 is discussed in Gilbert Goodman, *Government Policy toward Commercial Aviation* (New York, King's Crown Press, 1944); and in J. H. Hamstra, "Two Decades—Federal Aero-Regulation in Perspective," 12 *Journal of Air Law and Commerce* 105 (1941).

A detailed description of the Civil Aeronautics Act of 1938 is in Charles S. Rhyne, *Civil Aeronautics Act Annotated* (Washington, National Law Book Co., 1939). Rhyne's book also gives the legislative history of the Act and contains the text of the Act as an appendix. A briefer description of the Civil Aeronautics Act is Oswald Ryan, "The New Regulatory Policy Embodied in the Civil Aeronautics Act," 23 *Public Utilities Fortnightly* 515 and 597 (1939).

For a discussion of the reorganization of the regulatory authority in 1940 see "Official Interpretations of Reorganization Plan IV," 11 *Journal of Air Law and Commerce* 281 (1940). A description of the organization of the Civil Aeronautics Board and its procedure is given in R. W. Stough, "Organization and

³⁹ This view is substantially in accordance with the recommendations of the Board of Investigation and Research. For the Board's discussion of this problem see *Report on Practices and Procedures of Government Control*, 78th Cong., 2d sess., House Doc. No. 678 (1944), pp. 126-128.

Procedures of the Civil Aeronautics Board," 11 *I.C.C. Practitioners' Journal* 372 (1944).

For a discussion of various aspects of the administration of the Civil Aeronautics Act and of questions of policy see N. G. Melone, "Controlled Competition: Three Years of the Civil Aeronautics Act," 12 *Journal of Air Law* 318 (1941); John H. Frederick and Arthur D. Lewis, "Air Routes and Public Policy," 19 *Harvard Business Review* 482 (1941); C. S. Rhyne, "Civil Aeronautics Act of 1938 and 'Grandfather' Certificates," 12 *Air Law Review* 245 (1941); Kent T. Healy, "Workable Competition in Air Transportation," 35 *American Economic Review* 229 (1945); J. L. Highsaw, Jr., and W. C. Burt, "Competition under the Civil Aeronautics Act," 6 *Louisiana Law Review* 148 (1945).

On State regulation and its relation to Federal regulation see C. L. Morris, "State Control of Aeronautics," 11 *Journal of Air Law* 320 (1940); Oswald Ryan, "Federal and State Jurisdiction over Civil Aviation," 12 *Journal of Air Law and Commerce* 25 (1941); and by the same author, "Economic Regulation of Air Commerce by the States," 31 *Virginia Law Review* 265 (1945). In defense of State regulation see Frederick G. Hamley, "Appropriate Areas of State Economic Regulation," 11 *Law and Contemporary Problems* 488 (1946).

For the history of air-mail compensation see Paul T. David, *The Economics of Air Mail Transportation* (Washington, Brookings Institution, 1934), and, more recently, Francis A. Spencer, *Air Mail Payment and the Government* (Washington, Brookings Institution, 1941).

CHAPTER XXXIV

TRANSPORT COORDINATION AND INTERCARRIER RELATIONS

IN EARLIER chapters of this book the different modes of transport have been described and their characteristics noted. The regulatory system that has been developed for each has been explained; the regulatory problems of each have been discussed; and the principles and policies which have been developed by regulatory agencies in the administration of the legislation have been recounted. Little has been said, however, about the relations between the different modes of transport or about the problems to which these relations give rise. To these latter we must now turn our attention.

TRANSPORT COORDINATION

The term "coordination" has assumed a prominent position in recent years in the literature on the transportation problem. By "coordination" of transportation is meant the fitting of each form of transport into its proper place in the transportation system. In the words of another writer: "Coordination is the assignment, by whatever means, of each facility to those transport tasks which it can perform better than other facilities, under conditions which will insure its fullest development in the place so found."¹

The term is often used in a much narrower sense than is implied in the above definition. Sometimes it is used in the sense of joint services by two or more agencies of transportation, such as result from the establishment of through routes and joint rates by rail and water lines or by any two transportation agencies. At other times the term is used in the sense of avoiding the duplication of transportation facilities, whether of the same or of different forms of transport. Under the Emergency Transportation Act of 1933 the Federal Coordinator was to aid in the coordination of railroad transportation in this sense, by encouraging the elimination of duplication of rail transportation facilities. In this chapter, however, the term "coordination" will be used in the broader sense.

¹ Peterson, G. S., "Transport Co-ordination: Meaning and Purpose," 38 *Journal of Political Economy* 660, 680 (1930).

Coordination, as defined above, epitomizes the transportation problem as it exists today. This is because the transportation problem at the present time is primarily one of adjustment between the different forms of transport. The problem of transport coordination is not new, for the relation of rail transportation to water transportation has been a problem ever since railroads have existed. The problem of coordination, however, has assumed a new importance in recent years. This is explained by the revival of water transportation and the rise of new forms of transport. The place of highways in the transportation system was clearly fixed when they were used principally by horse-drawn vehicles. But with the development of motor vehicles and hard roads, highway transportation assumed a new importance and became competitive with the railroads. Thus the problem of the relationship of highway transportation to railroads was raised anew. In lesser degree the development of pipe lines and air transport has given rise to the question of their respective places in the transportation system. The business depression of the 1930's, which intensified the struggle for the lessened volume of traffic, drew public attention to the need for transport coordination.

If a coordinated transportation system is desirable, the question of how to attain it becomes important. The problem would be simpler if the precise field of operation in which each form of transport was superior to, or cheaper than, other forms could be marked out distinctly. This cannot be easily done. In fact, there is probably much overlapping of the fields in which various forms of transportation can operate effectively. The problem, therefore, is one of creating the conditions under which the proper place of each form of transport can be determined experimentally, with such restrictions as may be necessary to keep each from invading fields of operation in which others clearly prove superior.

TRANSPORT COORDINATION AND PROMOTIONAL POLICY

The attainment of a properly coordinated system of transportation may require a re-examination and reconsideration of the promotional policy which has been followed with respect to the various modes of transport. The railroads have contended from time to time that governmental action has promoted the expansion of water, highway, and air transportation facilities without adequate attention to their economic justification or to their effect upon railroads. This policy, it is argued, has had three unfortunate results. First, it is claimed that it has resulted in excess capacity in the transport industry, that is, in more transporta-

tion facilities than are needed. Second, it is claimed that this policy sometimes encourages less efficient modes of transport—a claim that is directed particularly against the expansion of water transportation facilities. Third, it is claimed that the policy of promoting the expansion of water, highway, and air transportation has intensified the railroad problem by making it more difficult for the railroads to obtain adequate revenues. It can be seen that all three of these results are easily possible, particularly if there is a more or less indiscriminate expansion of the various modes of transport.

Whether or not we have excessively promoted the expansion of the various modes of transport through public expenditures, and whether or not changes in policy may be desirable, can be determined only by examination of our policy with respect to the three modes of transport against which the charge of excessive promotional activity has been directed.

Highway Policy.—Responsibility for local highways rests with local and State governments; responsibility for the primary intercity highways rests primarily with the State governments, with a certain amount of Federal participation, particularly in financing.²

Highways are demanded for the convenience of the millions of owners of private automobiles who use them for both local and long-distance travel. Much of this use is not competitive with the railroads. Another important use of highways is to move products from the farm to market and from city to farm. This traffic is competitive with the railroads only to a limited extent. Of course the highways are used to a considerable extent for intercity movements of traffic that are directly competitive with railroads. This service, however, is frequently more convenient than rail service. Under the circumstances few would contend that highway development should be checked just because the highways divert some traffic from the railroads. The public needs and demands an adequate system of highways, and this need overshadows the adverse effects that highway improvement may sometimes have on the revenues of the railroads. It would be too much to expect the public in this day of automobiles and other motor vehicles to do without an adequate system of highways, even though these highways may divert some traffic from railways and intensify the difficulties which railways have to face. Although there can be too great expansion of highways,

² See pp. 667-669, *supra*.

most people who have occasion to use existing highways will agree that more and better highways are needed.

Air Transportation Policy.—We have noted elsewhere that the Federal Government has provided the system of airways, and that municipalities have generally provided airports.³ The Federal Government, under the Federal Airport Act of 1946, is actively engaged in encouraging further airport construction and improvement and will aid in the financing of airports. Although there could be an overexpansion of air transportation facilities, it is likely that an adequate system of air transportation requires an expansion of airway and airport facilities far beyond what we now have. The service provided by air carriers is a high-class service which surface transportation agencies cannot provide. Although air carriers will undoubtedly become more and more competitive with surface transportation agencies, it is doubtful if the public would accept a policy of retarding air transportation development in an effort to protect older modes of transport. In view of the unique service which air transportation can provide, it is distinctly in the public interest to encourage the development of air transportation facilities.

Waterway Policy.—Waterway policy has been discussed in an earlier chapter.⁴ It was there pointed out that there has been an extended argument between those who advocate an expansion of our system of inland waterways and those who strongly oppose the expenditure of public funds for the development of additional water facilities. Waterway policy in the past has been open to the criticism that not sufficient attention has been given to questions of economic justification from a national standpoint. Not all waterway improvements that are suggested are economically sound. On the other hand, not all projects for improvement of waterways can be condemned as unsound or unwise. As stated elsewhere, the criterion suggested by former Commissioner Eastman for determining whether a waterway should be improved or not is basically sound. "In determining whether a new waterway should be constructed," he said, "the essential question . . . is whether, assuming no reduction in the normal rates of competitors, it would make available new means of transportation which could function, taking *all* costs into consideration, more economically than existing means."⁵ The application of this principle is by no means easy, but every proposal

³ See pp. 790-793, *supra*.

⁴ Chapter XXX.

⁵ Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. I (Washington, Government Printing Office, 1940), p. vii.

for the improvement of waterways should receive careful analysis. The staff report on public aids to transportation made for the Board of Investigation and Research urged the need for better traffic analyses of proposed waterway projects.⁶

Even if it is agreed that a careful examination should be made of the economic soundness of proposed waterway improvements, there remains the question of whether this function should be performed, as in the past, by the Corps of Engineers and the Board of Engineers for Rivers and Harbors, or whether this task might more properly be performed by the Interstate Commerce Commission. The latter proposal has been suggested.⁷ In one instance Congress directed the Interstate Commerce Commission to examine the justification of a proposed canal from Lake Erie to the Ohio River.⁸ Waterway advocates oppose giving the Interstate Commerce Commission the duty of determining whether a waterway project is justified or not, believing that the Interstate Commerce Commission would give too great weight to the effect of a project on rail carriers. This danger could be overcome by prescribing statutory standards sufficiently specific to prevent that result. It is important, however, that a careful evaluation of waterway projects be made, regardless of what government agency performs the task. Statutory standards should be sufficiently definite to prevent the expenditure of funds on waterways of highly questionable economic soundness and yet not prevent expenditures on projects that have a reasonable prospect of providing the public with low-cost transportation.

THE SUBSIDY PROBLEM

The position which any one of the modes of transport will occupy in the national transportation system will depend in part on the extent to which it or its competitors are subsidized. As the term "subsidy" is used here, any mode of transport is subsidized if part of the costs of this mode of transport are borne by taxpayers and not by the users. The railroads have long complained of the subsidies extended to their competitors.

Before discussing in greater detail the extent and effects of subsidizing various forms of transportation it should be pointed out that it

⁶ *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), p. 397.

⁷ Johnson, Emory R., *The Railroads and Public Welfare* (New York, Simmons-Boardman, 1944), p. 224.

⁸ *Proposed Lake Erie-Ohio River Canal*, 235 I.C.C. 753 (1939).

is no answer to the railroad complaint to say that railroads were subsidized in the early days of railroad building. That they were subsidized admits of no doubt.⁹ Such subsidy, however, is of little significance at the present time. Land donated to railroads for rights-of-way has entered into present valuations and rate base in the same manner as if it had been purchased. Funds originally donated to railroads for construction purposes have been converted into physical property which enters into the rate base. Very little, if any, of the subsidy granted to railroads has relieved shippers of paying any part of the current expenses of operating and maintaining the railroad system or has relieved them of the burden of paying, if possible, a return on the capital invested in railroads. Part of the cost of water, highway, and air transport, however, is borne by the taxpayer, and not by those whose goods are transported by these agencies.

Water transportation, highway transportation, and air transportation are the forms of transportation concerning which the issue of subsidy arises. There has been no complaint of subsidy to pipe-line transportation, although the question may be raised if the pipe lines constructed by the Federal Government during the war are sold at low prices to private operators or are operated by the Government.

SUBSIDY TO WATER TRANSPORTATION

Water transportation is subsidized since part of the costs of water transport are borne by the taxpayers and not by the users of the waterway. We have pointed out in a previous chapter that waterways are improved and maintained principally by the Federal Government and that no charges are imposed on users to defray such expenditures.¹⁰

Although there can be no disputing the fact that water transportation is subsidized by taxpayers, controversy arises the moment an attempt is made to measure the subsidy. Obviously, the total expenditures on waterways made in any one year are not chargeable to that year, since part of the expenditures are in the nature of a capital investment which will be useful for many years. Actual expenditures must be classified according to whether they are operating and maintenance expenditures or whether they are capital expenditures. Capital expenditures must be distributed over the life of the improvement. This means that the total investment in waterways must be determined and that a

⁹ See pp. 101-115, *supra*.

¹⁰ P. 749, *supra*. Tolls are levied, however, for use of the Panama Canal.

rate of depreciation or amortization must be set up in order to determine an annual depreciation or amortization charge. There is ample opportunity for argument over the prospective service life of various waterway improvements. Controversy also arises over the question of whether interest on the investment in the waterways should be included in the calculations.¹¹ Then, if the subsidy is to be expressed in terms of cents per ton or per ton-mile of traffic, should the cost be divided by the actual traffic over the waterway or may allowance be made for various circumstances? Thus, if the waterway is incompletd, the traffic now handled may be small, although it may reasonably be expected to be greater when the entire waterway is completed. Furthermore, if railroads are allowed to reduce rates to meet the competition of water carriers, thus diverting traffic from the waterway, is it proper to charge the remaining traffic with the whole amount of the public expenditure?

The amount of subsidy or public aid found in water transportation will depend upon how these and other questions are answered. The study of public aids to transportation made for the Board of Investigation and Research found the subsidy to water transportation in 1940 to have been about \$125,000,000.¹² This amounted to 2.2 cents per ton on traffic handled at ports and on port rivers and connecting channels; it amounted to 3.1 cents per ton-mile for traffic on the longer rivers and canals.¹³

SUBSIDY TO HIGHWAY TRANSPORTATION

Highways are provided and maintained by State and local governments, as we have previously noted. Annual highway costs can be determined by the same method that is used to determine annual waterway costs, that is, by determining annual operating, administration, and maintenance costs, setting up an annual depreciation or amortization charge based on the estimated service life of highways, and, if interest is to be included, computing it on the unamortized investment in the highways. The all-important question of what portion of the annual cost of various classes of highways may properly be charged against motor vehicles must be answered, and the motor-vehicle share of the highway costs must then be compared with the payments made by vehicle owners for the use of the highways through special motor-vehicle taxes. There is much room for difference of opinion in making

¹¹ This question will be discussed more fully later.

¹² Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), p. 20.

¹³ *Ibid.*, p. 21.

computations of this sort; hence there is bound to be disagreement as to whether highway transportation is subsidized or not, or, if subsidized, the amount of such subsidy.

Two careful investigations of this question by government agencies reached the conclusion that motor vehicles as a whole are not subsidized at the present time. The Federal Coordinator of Transportation reached the conclusion that motor-vehicle users as a class have paid their way since 1926.¹⁴ The study made for the Board of Investigation and Research found that motor-vehicle users as a class "have contributed amounts fully adequate to meet an equitable share of the total annual costs of roads and streets."¹⁵ The wide variation in special motor-vehicle taxes in the different States suggests that there may be subsidy in some States and not in others.

The railroads have refused to accept the findings of either the Federal Coordinator's study or of that made for the Board of Investigation and Research, and they contend that there is still a substantial element of subsidy.¹⁶

Conclusions concerning the existence of a subsidy to highway transportation depend to a considerable extent on judgment as to the proportion of road costs which motor-vehicle users as a class should pay. It has been pointed out in a previous chapter that many highways are primarily land-access highways that are used very little by the average motor-vehicle owner. The annual costs of such highways may well be borne in large part by the local property owner and the general taxpayer. City streets are usually financed, and quite properly so, by special assessments on benefiting property and by local taxation. All streets and roads, furthermore, serve certain community functions which justify the assumption of part of the cost of building and maintaining them by the general taxpayer. For these reasons it would be unfair to make the motor-vehicle operator pay the entire annual cost of providing and maintaining such roads and streets. Just what proportion of these costs should be borne by motor-vehicle operators, however, cannot be determined by any statistical formula yet devised. It is a matter of judgment on which differences of opinion are bound to exist. The Federal Coordinator's study assigned to motor vehicles 83 percent of the annual

¹⁴ *Op. cit.*, vol. I, p. 26.

¹⁵ *Op. cit.*, p. 293.

¹⁶ Duncan, C. S.; Greenway, J. C.; Smith, Chester K.; and Feldman, Earl R., *A Review of "Public Aids to Domestic Transportation"* (Association of American Railroads, mimeographed, 1946), p. 22.

cost of State highways, 34 percent of the cost of county and local roads, and 30 percent of the cost of city streets for the period 1933 to 1937.¹⁷ The Board of Investigation and Research study assigned to motor vehicles 85 percent of the annual costs of the primary highway system, 30 percent of the costs of secondary and local roads, and 40 percent of the costs of city streets for the year 1940.¹⁸ The railroads contend that a much larger proportion of street and road costs should be assigned to motor vehicles.¹⁹

Although the Federal Coordinator's study and the Board of Investigation and Research study both concluded that motor vehicles as a class have paid their share of highway costs in recent years, both concluded that certain types of vehicles had not paid their share. The apportionment of the motor-vehicle share of road costs among the different classes of motor vehicles involves many controversial questions which cannot be discussed here. The conclusion of the Board of Investigation and Research study was that farm trucks, other trucks having a capacity of a ton or more, and intercity busses having twenty-five seats or more did not pay their share of highway costs and were in effect being subsidized by other motor-vehicle owners.²⁰ Mr. C. E. Childe, one of the Board members, disagreed with this conclusion, stating that the method of apportionment of road costs among types of vehicles unduly burdened the heavy over-the-road trucks and busses.²¹

SUBSIDY TO AIR TRANSPORTATION

Subsidy to air transportation was mentioned in a previous chapter.²² It was there pointed out that subsidy to air transportation arises from the free use of airways and navigation facilities provided by the Federal Government, from the use of publicly provided airports without adequate compensation therefor, and from generous compensation paid the airlines for transporting mail.

The Board of Investigation and Research study of public aids found that in 1940 the total subsidy to commercial air transportation amounted to approximately \$22,500,000, consisting of the following:²³

¹⁷ *Op. cit.*, vol. I, p. 25.

¹⁸ *Op. cit.*, p. 283.

¹⁹ Duncan, C. S., and others, *op. cit.*, p. 54.

²⁰ *Op. cit.*, pp. 61-62, 313.

²¹ *Ibid.*, pp. 36-37.

²² Pp. 807-811, *supra*.

²³ *Op. cit.*, p. 80.

Air-mail subsidy	\$14,475,670
Federal airways	4,272,467
Public airport costs, less payments made by airlines	3,780,111
Total	\$22,528,248

OBJECTIONS TO SUBSIDY

We have seen that air and water transportation are subsidized and that there is disagreement over the question whether highway transportation is subsidized. The objections to such subsidy must now be considered briefly.

(1) Subsidy places the railroads at a competitive disadvantage in competing with the subsidized forms of transport. It is obvious that the difficulties of the railroads are increased if part of the costs of water, air, and highway transportation are borne by the taxpayer.

(2) From a strictly economic standpoint, subsidy to some modes of transport makes it difficult to determine the proper place of each form in the transportation system. If each mode of transport must be self-supporting, rates and fares are more likely to reflect costs. Each mode of transport will thrive where it has a cost advantage over the others, or where the disadvantage of higher cost is offset by a superior type of service. Each mode of transport, therefore, is more likely to find its proper place in the transportation system if the element of subsidy is removed.

(3) Subsidy to some modes of transport and not to others stimulates the overexpansion of the subsidized transportation facilities. If water transport or highway transport appears to be cheaper, because the taxpayer pays part of the costs, there will be a tendency to overexpand these transportation facilities even though they may not provide a cheaper or a superior mode of transport when all costs are considered.

METHODS OF REMOVING OR REDUCING SUBSIDY

Subsidy to water transportation could be removed by a system of tolls for the use of publicly provided water transportation facilities. Many difficulties would be encountered, however, in an attempt to figure out reasonable tolls.²⁴ Subsidy to highway transportation, in so far as such subsidy may exist, could be removed by the imposition of special motor-vehicle taxes sufficient in the aggregate to meet a fair share of the

²⁴ For a discussion of this problem see Board of Investigation and Research, *op. cit.*, pp. 421-427.

annual highway costs, apportioned among different classes of motor vehicles in accordance with some agreed measure of responsibility for road costs. Subsidy to air transportation could be removed by a reduction in air-mail payments where they contain an element of subsidy, and by imposing some special fee or tax for the use of Federal airways, and by increasing the charges made for the use of publicly provided airports.

SOME CONTROVERSIAL QUESTIONS OVER THE REMOVAL OF SUBSIDIES

Discussions of alleged subsidy to water, highway, and air transport often become involved in controversy over the propriety of including interest on investment in publicly provided facilities as part of the subsidy, or over the question of whether hypothetical taxes on highways, waterways, and other publicly owned property should be included in the calculations, or whether depreciation and obsolescence should be included. Divergence of opinion on these questions is often due to a failure to distinguish between the ascertainment of the amount of subsidy or public aid as a fact and the related but not identical question of public policy to be followed in imposing special user charges.

Those who object to the inclusion of some or all of the controverted items mentioned above may be objecting explicitly or implicitly to a tax policy which makes the users of publicly provided facilities pay more than is necessary to cover the actual cash outlays made by the government in the provision of these facilities. They do not necessarily deny that the controversial items are an element in the determination of the relative costs of the different modes of transport. Those who have argued for the inclusion of the controverted items in calculations of the amount of subsidy are thinking in terms of the real costs of highway, water, and air transportation, and the determination of the portion of those costs borne by taxpayers as distinguished from users. They may recognize that the question of whether all such costs should be shifted from taxpayers to users of publicly provided facilities is another question, or they may take it for granted that sound public policy requires all of these costs to be borne by the users.

The question of the proper compensation which users of publicly provided transportation facilities should be asked to pay for their use is approached by different individuals with different underlying purposes or objectives in mind. Frequently these purposes and objectives are not clearly defined; but the conclusions regarding the treatment of interest,

tax equivalents, and some other matters will depend on the purposes and objectives held in mind. Let us consider three common purposes or objectives held in mind by those seeking to determine proper user charges, in order that we may see to what conclusion they lead concerning the inclusion of the disputed items.

User Charges to Equalize Competitive Conditions.—User charges may be levied with the object in mind of equalizing competitive conditions between privately owned and publicly owned facilities. If this objective is kept in mind, an effort will be made to offset by special user charges any advantage that grows out of the fact that some transportation facilities are provided by the public instead of by private enterprise. Interest on investment will be included because private enterprise must include interest on investment in its costs. In fact, interest would be included, not at the rate which a government would have to pay if funds were borrowed, but at the rate which a private business would have to pay. A tax equivalent would be included on the theory that if the facilities were privately owned they would be subject to taxation. On this basis, also, the investment in highways would include the value of lands used for rights-of-way, whether they were paid for by the State or not.²⁵

User Charges to Cover Full Actual Cost.—User charges may be imposed for the purpose of making users pay the full actual cost of the service. This shifts to the rate payer those costs which are initially borne by the taxpayer. If the determination of user charges is approached with this objective in mind, interest on the investment in highways, waterways, and air transport facilities will be included in the cost. These are elements of cost, irrespective of who provided the capital facilities or who owns them. Of course it is true that, unless the government borrowed the funds to build the transportation facilities, interest is not an actual cash outlay. It is a cost, nevertheless. This cost has been borne by those who contributed the funds to provide the facilities. In the case of waterways, airways, and airports, the taxpayer contributed the funds. In the case of highways the general taxpayer and those who aided in financing the highways through the payment of special motor-vehicle taxes provided the funds.

Whether a tax equal to that which would be paid on the transportation facilities if they were privately owned is properly a cost has been

²⁵ The railroads have criticized the B.I.R. study for not including the value of highway rights-of-way in highway investment unless the rights-of-way were purchased. See Duncan and others, *op. cit.*, p. 36.

hotly debated. The Federal Coordinator did not consider such tax equivalents to be a cost.²⁶ The staff of the Board of Investigation and Research took the same position.²⁷ The railroads contend that "escaped taxes" are a cost.²⁸

User Charges to Finance Publicly Provided Facilities.—User charges may be levied for the purpose of reimbursing the government for actual cash outlays incurred in providing, operating, and maintaining publicly provided transportation facilities. If this objective is kept in mind it is clear that user charges will be designed to cover all current expenses connected with the operation and upkeep of publicly provided facilities but will include interest only to the extent that the governmental agency has borrowed to finance the investment in transportation facilities. If user charges are to finance publicly provided facilities they must cover, first or last, the investment in the facilities. This may be accomplished by making the charges high enough to provide for future replacements and expansion of the system, or, what amounts to the same thing, by recovering depreciation on existing facilities and using the funds for replacements or for new facilities. When existing facilities have been financed by borrowing, the accumulation of funds from user charges to amortize the debt constitutes a delayed payment by the users for the cost of those facilities.

USER CHARGES AND PUBLIC POLICY

User charges may be levied with any of the above objectives in mind. The policy of levying user charges to equalize competitive conditions seems the least justifiable if it is carried to the point of making such charges cover costs which are not actually incurred, but which would have been incurred if the facilities had been built as private business enterprises.

A strong argument can be made for a system of user charges that places upon users of publicly provided transportation facilities the full economic cost associated with the provision and maintenance of those facilities. Under this system, transportation rates by the various modes of transport would be more likely to reflect actual transportation costs,

²⁶ *Op. cit.*, vol. I, p. 6; vol. IV, p. 52; vol. III, pp. 24-25.

²⁷ *Op. cit.*, pp. 100-101, 231-232.

²⁸ Breed, C. B.; Olier, Clifford; and Downs, W. S., *Highway Costs* (1930), p. 34; Association of American Railroads, *What Is Public Aid to Transportation?* (Washington, 1940), p. 131; and *A Review of "Public Aids to Domestic Transportation"* (mimeographed, 1946), pp. 25 and 36.

and each mode of transport could more easily be assigned to its most useful place in the transportation system. Under this system, also, there would be less tendency for overexpansion of transportation facilities, and the railroads could not complain that the terms of competition were unfair. This basis of levying user charges is particularly appropriate for any public undertaking in which the benefits accrue to very limited groups in society rather than to a large segment of the population.

It should be recognized, however, that to treat highways, waterways, and air transportation facilities in this way is to depart radically from the usual method of managing these public undertakings as well as other public enterprises which have been undertaken to render a service to the general public. If user charges were levied to recover the entire economic cost associated with the provision of publicly provided facilities, including interest on investment, these enterprises would be put on an income-producing basis. The States would derive large amounts of revenue from the highways in the form of interest on investment; the Federal Government would derive a cash income from the ownership of waterways; and municipalities would derive an income from airports in excess of their immediate outlays. It has not been customary to look upon such investments as sources of revenue. These facilities have been provided by the people acting collectively through their governments in order that they might enjoy the services which these facilities make possible. The public looks for a return on its investment in the form of these services and benefits.

The argument for departing from the traditional treatment of publicly provided facilities arises from the competitive relation between these facilities and privately owned railroads. If there were no railroads, and if the public were wholly dependent on the publicly provided transportation facilities, it is doubtful if anyone would suggest that user charges should yield the government a return on its investment. Railroads are admittedly at a disadvantage in competing with publicly provided transportation facilities when user charges for the latter do not cover interest on investment; but whether this situation is serious enough to require that all publicly provided facilities be put completely on a commercial or income-producing basis, contrary to usual practice in public undertakings, may be questioned. If the competition of highway, waterway, and air transportation should threaten the existence of needed rail transportation facilities, attention should doubtless be given to this method of reducing the competitive disadvantage of the railroads.

RAILROAD CONTROL OF COMPETING MODES OF TRANSPORT

Water transportation and highway transportation are competitive with rail transportation. To a lesser degree air transportation is also competitive. Should railroads be permitted to obtain control of water, highway, or air carriers or to engage in transportation by water, highway, or air? There has been much argument over this question. Some writers contend that railroads should become transportation companies, rather than remain railroad companies, and should engage in all forms of transport. According to this view, these companies would then use whichever method of transportation was cheapest or performed the best service in a particular situation.²⁰

A number of arguments may be advanced in behalf of permitting railroads to engage freely in other modes of transport.

(1) Such a plan would permit "coordination" of the various modes of transport, in that a railroad could utilize water transport, highway transport, and air transport wherever it was cheapest or where it provided a superior service. Coordination would thus become largely a managerial matter.

(2) This plan would enable railroads to effect many economies in their operations by substituting other forms of transport, particularly highway transport, for more expensive rail operations. Railroads have frequently found it possible to effect important economies by abandoning unprofitable passenger trains on branch lines and substituting bus service, or by giving up expensive way-freight trains and substituting motor-truck service for local freight service.

(3) Permitting railroads to operate highway, water, or air services would in some situations eliminate wasteful struggles for competitive traffic. When the various modes of transport compete with each other for traffic, there is a tendency for each to reach out for traffic that can more economically be carried by its competitor. These practices might be eliminated if other modes of transport came under the control of a railroad, although there is no assurance that wasteful competition would disappear unless a monopoly were established over a particular route. If independent carriers by water, highway, or air continued to exist, wasteful struggles for traffic might continue.

(4) Another argument for permitting railroads to engage in high-

²⁰ For this view see Moulton, H. G., "Fundamentals of National Transportation Policy," 24 *American Economic Review* (supplement) 33 (1933), and *The American Transportation Problem* (Washington, Brookings Institution, 1933), pp. 889-890.

way, water, and air transportation is that it would mitigate to some extent the competitive inequalities between railroads and the "subsidized" forms of transportation, since railroads, as well as others, would be deriving some benefit from public expenditures on highways, waterways, and on air transportation facilities.

Against railroad participation in, or control of, other modes of transport four arguments are of major importance:

(1) Competition between different modes of transport will give better service to the public, since there is an incentive for each mode of transport to win the favor and patronage of the public.

(2) The investment in railroad transportation facilities is so great that a railroad is more interested in keeping traffic on its rails and protecting its investment than it is in developing a new and competing mode of transport. Railroads in control of a competing mode of transport, therefore, may be inclined to keep rates high and service poor in an effort to keep traffic from leaving the rails.

(3) As a corollary to the point just made it is frequently contended that a more rapid development of highway, water, and air transportation will occur if railroads are not permitted to obtain control of them.

(4) Lastly, competition of railroad-controlled water lines, bus or truck lines, or airlines with independent water, highway, or air carriers is likely to result in the elimination of the independents by unfair competitive practices. Water, highway, or air carriers controlled by a railroad can cut rates to an unprofitable level and drive out the independents, since the losses of the railroad-controlled operations can be absorbed by the railroad, while the independents, having no other source of income to fall back on, are forced out of business.

RAILROAD CONTROL OF WATER CARRIERS

The policy of Congress has been to maintain competition between railways and carriers by water. The Panama Canal Act of 1912, now part of Section 5 of the Interstate Commerce Act, contained provisions designed to break up the control of boat lines by competing railways. This provision of the Interstate Commerce Act, as it now stands, makes it unlawful for a railroad "to own, lease, operate, control, or have any interest whatsoever (by stock ownership or otherwise, either directly, indirectly, through any holding company, or by stockholders or director in common, or in any other manner)" in any common carrier by water

or any vessel with which the railroad does or may compete for traffic. The Act gives the Commission authority to determine the fact of competition or possibility of competition.

The Commission is also empowered to permit railroad control of steamship lines if it finds that such control "will not prevent such common carrier by water or vessel from being operated in the interest of the public and with advantage to the convenience and commerce of the people" and that "it will not exclude, prevent, or reduce competition on the route by water under consideration." The Commission is not empowered, however, to permit railroad control of competing boat lines which operate through the Panama Canal. Here the prohibition of the statute is absolute.

In order to conform to the provisions of the Panama Canal Act the Trunk-Line railroads were forced to give up their control of steamship lines operating on the Great Lakes. The Commission found that the railroads had maintained high rates to divert traffic to the rail lines and that independent water lines had been driven out of business.³⁰ In numerous situations, however, the Commission has permitted railroad control of, or interest in, competitive water lines.³¹

It should be emphasized that permission for a railroad to operate a competing boat line rests upon a showing that the operation "will not exclude, prevent, or reduce" competition by water. In recent years the railroads have sought to have the provisions of the Panama Canal Act repealed. They argue that the need of the present is coordination of the various agencies of transportation and that coordination is impossible if the railroads are not allowed to own steamship lines. It must be remembered that the Panama Canal Act does not prohibit railroad ownership or control of all steamship lines, but only of competing lines. In view of the possibilities of harmful practices if railroads are allowed to control competing water carriers, the general prohibition of railroad control of competing water carriers is wise. The prohibition prevents a situation from arising in which a conflict of interest between the rail-

³⁰ *Lake Line Applications under the Panama Canal Act*, 33 I.C.C. 700 (1915). For a more recent application of the Panama Canal Act see *Nicholson Universal S. S. Co. Ownership*, 248 I.C.C. 43 (1941).

³¹ See *Central Vermont Boat Lines*, 40 I.C.C. 389 (1916); *Ocean Steamship Co. of Savannah*, 37 I.C.C. 422 (1915); *Steamer Lines on Long Island Sound*, 183 I.C.C. 323 (1932); *Missouri Pacific R. R. Co. and Texas & Pacific Ry. Co., Service by Water*, 245 I.C.C. 143 (1941). The administration of the Panama Canal Act is discussed in detail in Federal Coordinator of Transportation, *Regulation of Transportation Agencies*, 73rd Cong., 2d sess., Senate Doc. No. 152 (1934), Appendix I.

road and the water line is likely to lead to discrimination against water transportation, and it prevents unsound competitive practices so likely to arise when a railroad-controlled water line is competing with independent water carriers.

The power of the Commission to make exception to the prohibitions of the Panama Canal Act introduces some flexibility in the statute. The requirement that the Commission may not authorize railroad control of competing water lines unless such control will not "exclude, prevent, or reduce" competition by water would appear to limit greatly the possibility of relief from the provisions of the section. The Commission, however, has interpreted this requirement rather loosely.³² It would be preferable for Congress to amend the law so as to permit railroad control of a water line if such control is shown to be in the public interest and if it will not unduly restrict competition.

The principle of the Panama Canal Act was applied to a special situation by the Inland Waterways Corporation Act. A provision of that Act prohibits the sale or lease of the Federal barge line on the Mississippi and Warrior rivers "to any carrier by rail or to any person or company directly or indirectly connected with any carrier by rail." It is the declared policy of Congress to turn the barge line over to a private corporation when the pioneering work of the Inland Waterways Corporation is finished and when private capital is willing to take over the enterprise. But fear that the railroads might obtain control of the barge line and discontinue its operations or discourage its use led to the inclusion of the precautionary measure just described, thereby insuring a continuance of competition between the barge line and the railroads.

RAILROAD CONTROL OF MOTOR CARRIERS

Prior to the enactment of the Motor Carrier Act of 1935, many railroads had instituted motor-carrier operations either directly or through subsidiary companies. The Federal Coordinator of Transportation reported that in 1933 there were 209 steam or electric railways which were engaged to some extent in motor-vehicle operations.³³ Of these, 94 were Class-I railroads. Line-haul motor-truck service was per-

³² See dissenting opinion of Commissioner Anderson in *Steamer Lines on Long Island Sound*, 50 I.C.C. 634, 647-651 (1918), and of Commissioner Eastman in the same proceeding on further hearing, 183 I.C.C. 323, 349-352 (1932).

³³ *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), p. 264.

formed by rail carriers over 469 routes, with an aggregate length of 16,394 miles.³⁴

Although such operations were protected by the "grandfather" clause in the Motor Carrier Act, special tests were provided to govern the granting of authority under the Act for railroads or any "carrier other than a carrier by motor vehicle," to acquire control of motor carriers. This special test or requirement, with some change in language, was incorporated by the Transportation Act of 1940 into the broadened Section 5, which relates to consolidations and acquisitions of control of the various classes of carriers subject to the Act. The Act provides that if a carrier by railroad, or any person controlled by such a carrier or affiliated therewith, seeks authority to acquire control of a motor carrier, the Commission shall not issue such an order unless it finds that the transaction will be consistent with the public interest and "will enable such carrier to use service by motor vehicle to public advantage in its operations and will not unduly restrain competition."

The Commission, in referring to this provision of the law, has said that Congress intended "to protect each mode of transportation from the suppression or strangulation thereof which might follow if control thereof were allowed to fall into the hands of a competing transportation agency."³⁵ At the same time Congress was aware that motor vehicles could often be used as a subordinate instrumentality for the improvement of rail transportation service, and it therefore permitted railroads to acquire control of motor carriers when it would enable the railroad "to use service by motor vehicle to public advantage in its operations" and would not "unduly restrain competition."

The leading case under this provision of the law is known as the Barker case. In this case an affiliate of the Pennsylvania Railroad sought authority to acquire control of a motor carrier.³⁶ The Commission said: ". . . we are not convinced that the way to maintain for the future healthful competition between rail and truck service is to give the railroads free opportunity to go into the kind of truck service which is strictly competitive with, rather than auxiliary to, their rail operations."³⁷ The Commission pointed out that the language of the Act was evidence that Congress was of the same view. The Commission also remarked

³⁴ *Ibid.*, p. 274.

³⁵ *Rock Island Transit Co.—Purchase—White Line Motor Freight Co., Inc.*, 40 M.C.C. 457, 461 (1946).

³⁶ *Pennsylvania Truck Lines, Inc.—Control—Barker Motor Freight*, 1 M.C.C. 101 (1936), 5 M.C.C. 9 (1937), 5 M.C.C. 49 (1937).

³⁷ 1 M.C.C. 101, 111-112.

that in its opinion truck service would not have developed to the extraordinary extent to which it had developed if it had been under railroad control.³⁸ The Pennsylvania Railroad affiliate was allowed to acquire the motor carrier, but the Commission laid down a number of conditions to keep the motor-carrier operations strictly auxiliary to rail service, such as the substitution of truck service for that of way-freight trains. One restriction imposed in the Barker case was that no service should be given to or from a point not a station on the line of the acquiring railroad. The Commission expressed particular disapproval of railroad-controlled motor-carrier operations which would compete with the railroad itself, or those which would compete with an established motor carrier, or those which would invade a territory already adequately served by another rail carrier. The policy of the Barker case has been followed in a large number of other cases and may be considered the established policy of the Commission.

Applications of railroads to acquire control of existing motor carriers are covered by the provisions of the Act which we have just discussed, but applications of railroads to institute new service by motor vehicle directly or through an existing subsidiary are subject to the provisions of Section 207 which relate to the issuance of certificates of public convenience and necessity. No special requirements are imposed by the statute for a certificate when the applicant is a rail carrier or affiliated with a rail carrier. Public convenience and necessity must, of course, be shown, but no showing that the motor-carrier operations will be auxiliary or supplemental to rail transportation is required in the statute. The Commission, however, has granted certificates for railroad-controlled motor-carrier operations only when the service would be auxiliary or supplemental to rail service, thus recognizing the objections to participation by a railroad in motor-carrier operations competitive with itself. This action also makes the Commission's policy under this section of the Act consistent with the policy required by Section 5 of the Act in acquisition cases. The railroads have criticized the policy of the Commission, saying that there is no statutory authorization for imposing more difficult conditions on a railroad than on any other applicant for a certificate of public convenience and necessity to operate motor-carrier services. The Commission commented on this charge in 1946, saying:

We appreciate, of course, that section 207, unlike section 5, does not require of a railroad, undertaking to prove that public convenience and necessity require

³⁸ *Ibid.*, p. 112.

a motor service which it proposes, any greater measure of proof than is required of any other applicant. But this does not mean that it is as easy for one applicant, as for another, to prove need for a proposed service or that this Commission considering an application by a railroad for authority to perform an all-motor service, not in aid of its rail service but in competition therewith and with other motor carriers, can ignore the circumstance that such applicant is a railroad whose operation as proposed would ordinarily be inconsistent with the principles underlying the national transportation policy.³⁹

The leading case establishing the above policy was the *Kansas City Southern* case.⁴⁰ Here, as in the *Barker* case, the Commission imposed various conditions to restrict the service to that which was auxiliary or supplemental to the rail service. One such condition was that the railroad-controlled motor carrier could only transport traffic having a prior rail haul, or traffic which was to have a subsequent rail haul. This restriction was later found to be objectionable because it did not permit the railroad-controlled motor carrier to transport local freight between two small stations on its line, thus requiring the continuance of lightly loaded way-freight trains. The Commission therefore abandoned this restriction but substituted what came to be known as a "key-point" restriction.⁴¹ A "key-point" restriction does not permit the railroad-controlled motor service through or between larger cities, called "key points." The "key points" are in fact concentration and distribution points. Between them rail service is economical, and railroad-controlled motor-carrier operations are not permitted. Railroad-controlled motor service is confined to traffic moving from local points to key points, from key points to local points, or between local points. Thus traffic between local points on the railroad's line can be carried by motor vehicle, even though there has been no prior rail haul of this traffic or will be no subsequent rail haul. In 1946 the Commission said: "Since our report on oral argument and reconsideration in the *Kansas City Southern* case, almost without exception, every grant of any significant motor-carrier operating authority to any railroad or railroad affiliate has been made subject to conditions substantially identical with those imposed in the *Kansas City Southern* case."⁴²

³⁹ *Rock Island Motor Transit Co.—Purchase—White Line Motor Freight Co.*, 40 M.C.C. 457, 473-474 (1946).

⁴⁰ *Kansas City Southern Transport Co., Inc., Common Carrier Application*, 10 M.C.C. 221 (1938), 28 M.C.C. 5 (1941).

⁴¹ 28 M.C.C. 5 (1941).

⁴² *Rock Island Motor Transit Co.—Purchase—White Line Motor Freight Co.*, 40 M.C.C. 457, 469 (1946).

The railroads would like to have broader authority to engage in motor-carrier operations than are permitted under the principle of the Barker and Kansas City Southern cases. The motor carriers, on the other hand, object to even this much participation by railroads in motor-carrier operations. In one case, independent motor carriers sought to have an order of the Commission set aside which had authorized motor-carrier operations by a railroad under key-point restrictions. The independent carriers alleged that the Commission should not have given the railroads authority to engage in motor-carrier operations of this sort when existing motor carriers could have provided the service. The Supreme Court of the United States upheld the order of the Commission.⁴³ The Court has said, however, that in cases of this sort the Commission "must weigh the advantages of improved rail traffic against the injury to the over-the-road motor carriers to determine where public convenience and necessity lies."⁴⁴ The Commission must therefore permit evidence to be introduced relating to the effect of the proposed service on non-rail motor carriers.⁴⁵

The Commission has been somewhat more liberal in regard to railroad-controlled bus operations than to railroad-controlled truck operations.⁴⁶ Railroad-controlled bus operations, however, are commonly restricted to prevent a railroad from extending its operations into territory already served by other carriers, unless existing transportation service in that area is inadequate and unsatisfactory.⁴⁷

RAILROAD CONTROL OF AIR CARRIERS

The law relating to control of airlines by railroads, or by any surface carrier, is quite similar to the law relating to railroad control of motor carriers. Section 408(b) of the Civil Aeronautics Act requires approval of the Civil Aeronautics Authority (now Civil Aeronautics Board) for the acquisition of control of an air carrier by another carrier. The section further provides that when control of an air carrier is sought by "a carrier other than an air carrier," or by a person controlled by such carrier or affiliated therewith, the Board may not approve of such consolidation or acquisition of control unless it finds that it "will promote the public interest by enabling such carrier other than an air carrier to use

⁴³ *Interstate Commerce Commission v. Parker*, 326 U.S. 60 (1945).

⁴⁴ *American Trucking Associations, Inc. v. United States*, 326 U.S. 77, 86 (1945).

⁴⁵ *Ibid.*

⁴⁶ *Gulf Transport Co.—Purchase—Tinsley*, 40 M.C.C. 767, 777 (1946).

⁴⁷ *Ibid.*, p. 776, and cases there cited.

aircraft to public advantage in its operation and will not restrain competition." Few cases have arisen under this provision of the Act. In one case, however, the Board found that Northeast Airlines was controlled by three railroads—the Maine Central, the Boston & Maine, and the Central Vermont—but that, since this control antedated the effective date of the Civil Aeronautics Act, and control had not been increased since that date, the Act was not violated by the continuance of this control.⁴⁸

In the Northeast Airlines case the Board commented on the policy of the Act with respect to control of air carriers by surface carriers, saying: "We are convinced that a construction of this Act which rigidly limits the participation of other forms of transportation in the air transport field is in harmony with the intent of Congress, and is necessary to attain a full and sound development of our national air transportation system."⁴⁹ Similar views were expressed in another case, in which the American Export Lines, a steamship line, was required by the Board to divest itself of control of American Export Airlines.⁵⁰ The Board has said that only those limited air transport services of a surface carrier which are auxiliary and supplementary to other transport operations are permissible under Section 408(b).⁵¹

The Civil Aeronautics Act does not impose any special restrictions on the grant of a certificate of public convenience and necessity to a surface carrier to engage in air transportation, but in the American Export case the Board said that a surface carrier applying for a certificate of public convenience and necessity to operate air transport services would be required to show that the special requirements of Section 408(b) were met. In other words, the Board will require that such operations be auxiliary or supplementary to its other operations.⁵² In the Examiners' report in the Local and Feeder Line Investigation of the Board it was pointed out that on August 31, 1943, 36 of the 233 applications before the Board for new air service were applications of surface carriers.⁵³ In its report the Board remarked that no case had been decided in which a surface carrier itself had applied for a certificate to engage in

⁴⁸ *Railroad Control of Northeast Airlines*, 4 C.A.B. 379 (1943).

⁴⁹ *Ibid.*, p. 381.

⁵⁰ *American Export Airlines, Control of American Export Airlines*, 4 C.A.B. 104 (1943).

⁵¹ 3 C.A.B. 631, 636 (1942).

⁵² *Ibid.*, p. 637.

⁵³ 6 C.A.B. 1, 10 (1944).

air transportation. The Board adhered to the view, however, that a surface carrier applying for a certificate would be required to show that the requirements of Section 408(b) were met.⁵⁴ By way of indirect reply to the charge that, by its interpretation of the law, it had virtually excluded surface carriers from participation in air transport, the Board said:

The second proviso of Section 408(b) is not a prohibition, but a restriction, upon such participation. The inability in the past of an applicant to meet the requirements obviously does not mean that those requirements cannot or will not be met in some future case in which the facts of the particular case show that the air transport services will be auxiliary, supplementary, and incidental to the other transport operations of the applicant.⁵⁵

The wisdom of the policy of the Board which has thus far practically excluded surface carriers from participation in air transport has been vigorously challenged, particularly by steamship lines operating to and from foreign countries.⁵⁶ Efforts have been made to change the law so as to permit steamship lines to engage in air transport.⁵⁷ The railroads also contend that they should not be prevented from engaging in air transportation.⁵⁸ The Transportation Association of America has been vigorous in sponsoring a plan of "integration" of transportation, which involves the removal of existing legal obstacles in the way of railroad participation in all forms of transportation. The major airlines, of course, are very much opposed to the participation of railroads and other surface transportation agencies in air transportation.

CONCLUSIONS ON RAILROAD CONTROL OF OTHER MODES OF TRANSPORT

The policy of Congress has been neither to prohibit absolutely, nor to permit freely, the control of other modes of transport by railroads. Congress has recognized that railroads may engage in water, highway,

⁵⁴ *Ibid.*, pp. 7-8.

⁵⁵ *Ibid.*, p. 7.

⁵⁶ See Van Metre, T. W., *American Transportation Policy* (Washington, National Federation of American Shipping, 1944); Baggett, S. G., "The Right of Steamship Carriers to Participate in Transoceanic Air Service," 12 *I.C.C. Practitioners' Journal* 3 (1944). See also 30 *ABA Journal* 503, 522 (1944).

⁵⁷ See Executive Hearings before the Committee on the Merchant Marine and Fisheries, House of Representatives, 78th Cong., 2d sess. on H. Res. 52—*Transoceanic Aircraft & the Merchant Marine* (1944).

⁵⁸ Association of American Railroads, *National Transportation Inquiry*, a statement to the Subcommittee on Transportation of the Committee on Interstate and Foreign Commerce, House of Representatives (1946), pp. 29-31.

or air transportation to their advantage, and to the advantage of the public, under some circumstances. It has also recognized that special dangers lurk in railroad control of competing modes of transport. Special safeguards have therefore been set up to prevent railroad control of other modes of transport except in special circumstances. This policy is superior to one which absolutely prohibits railroads from engaging in other modes of transport, or one which makes no effort to prevent the peculiar abuses which are latent in control by railroads of other modes of transport. It may be that the law is unduly strict or that it has been administered too rigidly in some instances, but it is important that railroads be not allowed to control and suppress competing modes of transport. Neither should they be allowed, through controlled water lines, bus lines, truck lines, or airlines, to engage in unfair competition with independent carriers by sustaining losses in such operations until the independents succumb.

COORDINATION THROUGH FREE COMPETITION

It is sometimes asserted that free competition should be permitted between the various forms of transport. By a process of survival of the fittest, it is thought, each system will become dominant in the field in which it is superior, and true coordination will be achieved automatically. Such a policy would require the removal of any restrictions which may now hamper railroads in meeting competition. It would also demand the removal of such subsidy as other forms of transportation may enjoy.

But the assumption that free competition would cause each transportation agency to withdraw from operations in which it is at a disadvantage and to confine itself to the field of operation in which it is superior is entirely without foundation. We have already noted the rate policies which result from free competition between rival railroad companies and which explain in large part the necessity of regulation. There is no reason to think that railroads would adopt different rate policies if competing with other forms of transportation. In the past railroads have sometimes restricted the normal development of water transportation by cutting rates to out-of-pocket costs where water competition was encountered. Railroads would undoubtedly engage in similar practices if allowed to compete freely with trucks or with other transportation agencies. And these agencies would resort to similar tactics, although their ability to do so is much more restricted than that

of rail carriers, because a larger proportion of their expenses varies with the service performed. But to the extent of their ability they would engage in the same rate-cutting practices. Evidence of this has already been noted in the motor-carrier industry. Free competition, then, would result in each agency of transportation reaching out at unremunerative rates to capture traffic from its rival. It would not result in confining each agency to the field in which it is superior. It would result either in financial ruin to some or all of the carriers concerned, or, the carriers, in an effort to avoid that result, would resort to some form of combination or agreement, and monopoly would be established.

Although transport coordination cannot be attained through unrestricted competition, there may be an extensive field within which competition between different transportation agencies is desirable, but this must be a controlled competition. It must not be allowed to assume the destructive form that is inevitable without the restraining hand of the government.

INTERAGENCY COMPETITION AND ITS CONTROL

We must now turn to a consideration of some of the controls which are exercised over interagency competition, that is, over competition between the different modes of transport. These controls, although necessary, may be easily abused. If improperly exercised, they may result in a situation that is little better than monopoly. The controls which we must consider are: (1) restriction of entry into the business of transporting persons or property; (2) regulation of rates; and (3) the prevention of unfair or objectionable competitive practices.

RESTRICTION OF ENTRY

Certificates of public convenience and necessity are now required before one may engage in transportation by rail, highway, water, or air. Certificates of public convenience and necessity are also required for the construction of natural gas pipe lines but not for pipe lines used for the transportation of crude oil or its products. Restriction of entry as a form of control was established chiefly for the purpose of controlling competition between different carriers of the same type rather than for the purpose of controlling competition between the different modes of transport. Railroads, however, were hopeful that the establishment of certificate requirements, particularly for highway carriers and water carriers, would operate to restrict to some extent the establishment of

service by highway and by water which would be competitive with railroads. This hope explains why railroads were strong advocates of regulation of motor carriers and water carriers.

RESTRICTION OF ENTRY TO PROTECT RAILROADS

Under State legislation certificate provisions have sometimes been used to protect railroads from the establishment of competing motor-carrier services. State motor-carrier laws, and practices thereunder, however, have varied widely. The laws of most States require a consideration of the effects of the proposed operations upon other carriers, sometimes specifically mentioning rail carriers. A law of North Dakota forbade the commission to authorize motor-carrier service that would substitute such service for that of railroads.⁵⁹ A number of State statutes, however, have not permitted the commission to consider the effect of motor-carrier service upon railroads.⁶⁰ The courts of some States have held that the commission must give consideration to existing rail transportation service.⁶¹ But the Michigan Supreme Court held that, in the absence of language in the statute which would require it, there should be no consideration of the effect of the proposed service upon railroad companies, but that the commission should consider only the effect on other motor carriers.⁶²

It is difficult to generalize regarding the proper policy to adopt on this question. Undoubtedly a commission should take into consideration the effect of proposed truck services upon rail carriers, and statutes should permit this to be done. Certainly, if the public cannot support two transportation systems, it must choose which one it will have, and in this situation the rail service is often preferred. On the other hand, some States have undoubtedly gone too far in protecting railroads from motor-vehicle competition.

There are two objections to the policy of denying certificates to motor carriers for the purpose of protecting the railroad. First, such a policy, if effective, deprives the public of a service that is often superior and sometimes cheaper than rail service. The two classes of service are so different that the existence of seemingly adequate rail service does

⁵⁹ Federal Coordinator of Transportation, *Regulation of Transportation Agencies*, 73rd Cong., 2d sess., Senate Doc. No. 152 (1934), p. 181.

⁶⁰ *Ibid.*

⁶¹ *Chris Vander Werf v. Board of Railroad Commissioners of South Dakota*, 237 N. W. 909 (1931); *Seaboard Air Line Ry. Co. v. Railroad Commission of Florida*, 100 Fla. 1027 (1930).

⁶² *Rapid Ry. Co. v. Michigan Public Utilities Commission*, 225 Mich. 425 (1923).

not always justify the denial of truck service. No artificial restrictions should be imposed that will prevent the development of a cheaper or better transportation service. The second difficulty with this policy of protecting rail carriers from highway carriers is that it is largely futile. If common carriers and perhaps contract carriers are denied the right to operate, the shipper who has substantial and frequent shipments to make can perform his own transportation service. As long as the individual has the right to operate his own trucks on the highway, the highway will be used when truck transportation is cheaper or more convenient than rail transportation. The railway is competing with the highway, not simply with carriers for hire operating over the highway. Only the small shipper, who cannot afford to do his own trucking, is forced to patronize railways if certificates are denied to common carriers.

The Interstate Commerce Commission gives consideration to the effect of proposed trucking services upon rail carriers. In numerous cases the existence of rail service has been pointed out as one factor among others to justify the denial of certificates. Rail carriers seem to stand upon the same footing as competing motor carriers. They are entitled to some protection, but not, it is inferred, if there is a demand or need for the different or better service which the applicant proposes.

Where a certificate is sought to engage in the transportation of commodities generally and to serve a public already served by a railroad and motor carriers, the burden of proof is upon applicant to show that the latter are not rendering a type or character of service which satisfies the public need and convenience and that the proposed service would tend to correct or substantially to improve that condition.⁶³

Since motor-carrier service is so different from rail service and fills a need which rail transportation cannot fill, the railroads, in fact, obtain very little protection from competition through the Commission's policy. In granting a certificate to a motor carrier to transport automobiles, over the protest of rail carriers, the Commission pointed out that speedier service, lower cost, and the saving of various incidental expenses made the motor-carrier service desirable in the public interest.⁶⁴ In authorizing a common-carrier motor service in the transportation of gasoline the Commission pointed out that there were certain inherent advantages in the transportation of petroleum products by motor vehicle.⁶⁵ The more direct service which motor carriers can provide has been

⁶³ *Coffman Common Carrier Application*, 3 M.C.C. 93, 94 (1937).

⁶⁴ *Western Auto Shippers Extension of Operations*, 3 M.C.C. 173, 176 (1937).

⁶⁵ *Bowles Common Carrier Application*, 1 M.C.C. 589, 591 (1937).

cited as justifying the grant of a certificate for operations that were competitive with rail service.⁶⁶

This policy is clearly observable in some cases relating to bus service. In one such case the Commission said: "We come again to the rail carriers' contentions. To hold that the passenger service rendered by them is adequate would be to disregard in a large measure the expressed preference of the public for bus service, with its commonly acknowledged advantages of lower fares, greater flexibility of routings and schedules and scenic highways."⁶⁷

A policy that would protect railroads against the competition of other modes of transport must be considered in the light of the National Transportation Policy declared in the Interstate Commerce Act. This declaration of policy, added to the Act in 1940, requires "fair and impartial" regulation of all modes of transport subject to the Act. It also requires the Commission in administering the Act "to recognize and preserve the inherent advantages" of each mode of transport. It would hardly be consistent with this policy to suppress any form of transportation for the purpose of protecting railroads except under unusual circumstances. The power to control entrance into highway or water transportation should not ordinarily be exercised to protect railroads when the other modes of transport could provide transportation at lower rates, or could provide a better service, or a service that is more suited to particular needs. There may be circumstances, however, as pointed out previously, when sparsity of available traffic makes it necessary to choose between various modes of transport, since all cannot be supported.

INTERAGENCY COMPETITION AND RATE REGULATION

We must now turn to a brief consideration of one of the most difficult problems facing regulatory bodies at the present time, namely, the adjustment of rates between competing modes of transportation. The Interstate Commerce Commission has decided a number of very important cases of this sort in recent years, and the number of such cases coming before it is likely to increase.⁶⁸ The extent to which we

⁶⁶ *Locke Common Carrier Application*, 2 M.C.C. 599 (1937).

⁶⁷ *Dixie Greyhound Lines, Inc., Extension of Operations*, 1 M.C.C. 681, 690 (1937). See also *Maine New Hampshire Stages Common Carrier Application*, 2 M.C.C. 297, 302 (1937).

⁶⁸ More important cases of this sort are reviewed in the Commission's report in *New Automobiles in Interstate Commerce*, 259 I.C.C. 475, 535-540 (1945).

will attain a coordinated system of transportation, in the sense of each mode of transport performing the services for which it is best fitted, will depend in large measure on the policies worked out by the Interstate Commerce Commission in cases of this type.

At the outset we need to note two possible policies which, if adopted by the Commission, would be particularly unfortunate. These are: (1) a policy of permitting all carriers competing for the same traffic to reduce rates to an out-of-pocket-cost basis; and (2) "umbrella" rate making, that is, a policy of permitting rates to be fixed on the basis of the needs of the high-cost agency. Each of these policies will be considered in turn.

UNRESTRICTED OUT-OF-POCKET-COST RATE MAKING

Under this policy competing modes of transport would be permitted to reduce competitive rates to an out-of-pocket-cost basis. The regulatory body would not interfere with such rate cutting unless and until the rates were below the out-of-pocket costs of the carrier concerned. This policy would be little different than no regulation. In the absence of any control whatsoever, competing transportation agencies would tend to reduce rates to this basis. Out-of-pocket costs, rather than fully allocated costs, tend to control rate making under the stress of competition, since any traffic carried at a rate which covers out-of-pocket cost and a little more leaves the carrier better off than if it allowed the traffic to go by another agency. This process, however, cannot go on forever if a carrier is to meet all of its costs. In other words, unrestricted competition between the different modes of transportation, like unrestricted competition between railroads, is ruinous in character.

The objections to permitting competing forms of transportation to engage in out-of-pocket-cost rate making may be summarized as follows:

(1) This policy, as we have just noted, is essentially one of permitting competition of the "ruinous" type and would impair the revenues of all transportation agencies involved.

(2) Such a policy of rate making would create discrimination between places. Competitive points would receive transportation services at rates which were less than cost. Noncompetitive points would pay rates on a higher basis.

(3) This rate policy would not allocate traffic among the various transportation agencies on the basis of transportation costs. If the quality of the service were the same, the traffic would move by the agency with

the lowest out-of-pocket costs, but not necessarily by the agency able to handle the traffic at the lowest cost if all its costs were considered. The railroad, with a larger proportion of fixed costs and a smaller proportion of variable costs, would be able to carry traffic at a fraction of its full cost, while motor carriers and water carriers, with most of their expenses variable, would be unable to compete for the traffic. On a fully allocated cost basis, however, motor carriers and water carriers would be the low-cost agencies in some situations.

"UMBRELLA" RATE MAKING

The second objectionable rate policy that might be adopted is a policy of making rates sufficiently high to protect the high-cost agency. This is substantially the method of rate making which the carriers would undoubtedly adopt if they sought by agreement among themselves to prevent competition of the ruinous type. It is the pricing policy which is frequently adopted in cartelized industries.

In a few cases the Interstate Commerce Commission has approached this policy of rate making or has used language which might be construed as approving such a policy. One such case related to rates on petroleum between Washington, Oregon, Idaho, and Montana.⁶⁹ Competition between different modes of transportation was involved. The Commission remarked that it should not "allow competitive rates to gravitate to the lowest possible level."⁷⁰ It also said that it would prescribe minimum rates which would "promote a somewhat healthier degree of prosperity for all the carriers concerned, by rail, by highway, and by water."⁷¹ This case was carried to the courts, and the Commission's order was upheld.⁷² Judge Fee, in a dissenting opinion, objected to the Commission's decision because of the "umbrella" rate making in which he felt that the Commission had indulged. The majority of the Court, however, apparently did not feel that "umbrella" rate making was involved.

Although there are cases in which the Commission has leaned toward a policy of "umbrella" rate making,⁷³ there are other cases in

⁶⁹ *Petroleum between Washington, Oregon, Idaho, & Montana*, 234 I.C.C. 609 (1939).

⁷⁰ *Ibid.*, p. 637.

⁷¹ *Ibid.*

⁷² *Scandrett v. United States*, 32 F. Supp. 995, 1002-1008 (1940).

⁷³ See cases reviewed in *New Automobiles in Interstate Commerce*, 259 I.C.C. 475, 535-540 (1945).

which it has spoken out strongly against a policy of making rates high enough to protect a high-cost carrier. Most of these cases have been decided since the enactment of the Transportation Act of 1940. In a case involving petroleum from California to Arizona, the Commission, referring to a situation in which one transportation agency could carry traffic at a much lower cost than another, said:

To direct the low-cost agency . . . to increase its rates would be to disregard the admonition of both the Interstate Commerce Act and the Motor Carrier Act to give due consideration "to the need in the public interest of adequate and efficient . . . transportation service at the lowest possible cost consistent with the furnishing of such service." It would be regulation in the interest of the high-cost agency rather than in the public interest.⁷⁴

In another case in which "umbrella" rate making was rejected the Commission pointed out that such a policy of rate making would be inconsistent with the Rule of Rate-Making as amended in 1940. The revised Rule of Rate-Making requires the Commission to consider "the effect of rates upon the movement of traffic *by the carrier or carriers for which the rates are prescribed.*"⁷⁵ This means, said the Commission, that "no carrier should be required to maintain rates which would be unreasonable, judged by other standards, for the purpose of protecting the traffic of a competitor."⁷⁶ In *New Automobiles in Interstate Commerce* the Commission said:

As Congress enacted separately stated rate-making rules for each transport agency, it obviously intended that the rates of each such agency should be determined by us in each case according to the facts and circumstances attending the movement of the traffic by that agency. In other words, there appears no warrant for believing that rail rates, for example, should be held up to a particular level to preserve a motor-rate structure, or vice versa.⁷⁷

A policy of "umbrella" rate making would also be clearly a violation of the provision of the National Transportation Policy which requires that the "inherent advantages" of each mode of transport be recognized in regulating the various types of carriers subject to the Act.

⁷⁴ *Petroleum & Petroleum Products, California to Arizona*, 241 I.C.C. 21, 43 (1940).

⁷⁵ Italics ours.

⁷⁶ *Seatrain Lines, Inc. v. Akron, Canton & Youngstown Ry. Co.*, 243 I.C.C. 199, 214 (1940).

⁷⁷ 259 I.C.C. 475, 538 (1945).

COST OF SERVICE AS A BASIS FOR RATES OF
COMPETING MODES OF TRANSPORT⁷⁸

There are two policies which might be adopted by the Interstate Commerce Commission in the exercise of its rate-making powers, either of which could be considered as recognizing the inherent advantages of the different modes of transport but which would be quite different in their results. One of these policies would be to fix the rates on the basis of the cost of service by the low-cost agency, but to permit the high-cost carriers, if they so desire, to meet the rates of the low-cost carrier so long as their own out-of-pocket costs were covered. The other policy would be to require each transportation agency to base its rates on its own costs. Each of these alternatives requires examination.

These policies are alike in two respects. In the first place, each gives the public the benefit of the low-cost transportation agency. There is no "holding the umbrella" over the high-cost carrier. In the second place, the public would not get rates lower than the full cost of the service by the low-cost agency. In other words, the cheaper transport agency would not be allowed, with an exception to be noted below, to make rates on an out-of-pocket-cost basis.

In ascertaining costs of transportation by the low-cost agency three cautions would have to be observed. High unit cost resulting from a low degree of utilization of facilities should not be permitted to produce rates which restrict more complete utilization. Second, a certain amount of adjustment in the rates on the basis of the value of the service might be necessary in order to utilize fully the facilities of the low-cost agency and to keep unit costs at a minimum. In the third place, if cost figures are based on existing operating methods and facilities, they may need to be modified to make allowance for obsolescence, duplicate facilities, and outmoded techniques before being used for rate-making purposes.

In behalf of permitting the high-cost agency to meet the rates of the low-cost agency four arguments may be advanced. First, this policy represents the least break with the past. The Interstate Commerce Commission has long permitted circuitous rail lines or high-cost routes to meet the rates charged by low-cost routes or direct routes, often granting fourth-section relief to enable them to do so. Likewise, the Commission

⁷⁸ The following paragraphs are based largely on material prepared by the author for the National Resources Planning Board and published in its report entitled *National Transportation Policy* (Washington, Government Printing Office, 1942), pp. 115-117.

has often permitted rail lines to reduce rates to meet the competition of water lines, pipe lines, and motor trucks without reducing rates where this competition is not encountered. Second, this policy results in a greater degree of competition for traffic, and hence stimulates good service. Third, observance of this policy may be the only means whereby communities served by the high-cost carrier can maintain a transportation system. Even if the competitive traffic is not essential to the existence of these carriers, the right to carry some of it may be the means of lowering the rates to points served only by the high-cost agency. The policy of permitting the high-cost carrier in such situations to meet the rates of a low-cost competitor operates as a broad equalizing force, tending to reduce transportation rates at points served only by the high-cost carrier. Lastly, the policy of permitting the high-cost transportation agency to meet the rates of the low-cost agency may be more economical than that of expanding the facilities of the low-cost agency. This will happen when the existence of unused capacity on the part of the high-cost agency means that additional traffic can be carried with little additional outlay, while an expansion of facilities of the low-cost agency may be necessary if it is to carry all the traffic.

Notwithstanding the above arguments, there is something to be said for the policy of requiring each form of transport to adhere to rates based on its own fully allocated costs. In the first place, this seems to be the only way to distribute traffic between rival forms of transportation in a manner that is not to some degree arbitrary. If high-cost carriers are to be allowed to cut rates to meet the rates of a low-cost carrier, the question is inevitably raised of how low the rates must be cut to attract traffic from the low-cost carrier, and also what would be a "fair share" of the traffic. There seems to be no rational basis for determining the "fair share" of traffic except by placing rates on a cost basis and allowing the traffic to distribute itself as it may. In the second place, the policy of requiring each form of transport to charge rates based on its own costs avoids wasteful transportation that the other policy sometimes causes. If high-cost transport agencies are allowed to meet the rates of the low-cost agency, it is usually done on the "out-of-pocket-cost" or "added traffic" theory. The arguments are that the competitive traffic contributes to the overhead expenses of the high-cost agency and that it is better for the high-cost agency to carry the traffic than not to carry it. This defense of the less-than-cost rates is from the point of view of the high-cost line only. From the point of view of society at large, the diver-

sion of traffic from a low-cost agency may result in economic waste. There is certainly economic waste equal to the difference between the direct costs incurred in moving the traffic over the high-cost route and the direct cost that would have been incurred in handling the traffic over the cheaper route.

The extent to which each mode of transport should be required to adhere to rates based on its own fully allocated costs, or, on the other hand, should be permitted to meet rates of low-cost agencies, is a matter which admits of no universal answer. Each situation must be examined in the light of its own peculiar circumstances. So many factors enter into the problem that they cannot all be treated here, but clearly the extent of unused capacity on the part of the high-cost carrier and the ability or inability of the low-cost carrier to handle all of the traffic are important considerations.

CONTROL OF UNFAIR OR OBJECTIONABLE COMPETITIVE PRACTICES

When different modes of transport are engaged in a competitive struggle for traffic, one or more of the carriers will sometimes engage in various unfair or objectionable competitive practices. These may be "unfair" competitive practices in the sense in which that term is commonly used, that is, unfair to competitors, or they may be practices which inconvenience the public in some way. No attempt will be made to catalog such practices, but we will consider a few that have been specifically dealt with in regulatory legislation.

RATE CUTTING TO DESTROY COMPETITORS

The cutting of rates to an unremunerative level for the purpose of destroying competitors might be classed as an unfair method of competition. It is difficult to distinguish between legitimate rate cutting by a carrier to meet competition, and rate cutting which can be classed as unfair competition. Congress, however, seems to have recognized that rate cutting may be carried so far as to constitute an unfair competitive practice. Thus the National Transportation Policy declares, among other things, that it is the policy of the Act "to encourage the establishment and maintenance of reasonable charges for transportation services, without . . . unfair or destructive competitive practices."

It is also provided in paragraph 2 of Section 4 of the Interstate Commerce Act that whenever a railroad competing with a water route reduces rates at competitive points "it shall not be permitted to increase

such rates unless after hearing by the Commission it shall be found that such proposed increase rests upon changed conditions other than the elimination of water competition." This provision of the law has not been particularly effective,⁷⁹ but it clearly expresses the views of Congress toward the reduction of rates to an unremunerative level until competitors by water are eliminated. The Supreme Court of the United States has pointed out that this provision was designed "to prevent the railroads from killing water competition by making excessively low rates."⁸⁰ Mention should also be made of the fact that the Commission, in granting fourth-section relief to railroads to meet water competition, has laid down the principle that reduced through rates shall "be no lower than necessary to meet existing competition" and "not be so low as to threaten the extinction of legitimate competition by water carriers."⁸¹

ESTABLISHMENT OF FACILITIES FOR INTERCHANGE OF TRAFFIC

Rail carriers have sometimes refused to establish the necessary facilities for interchange of traffic with other agencies of transportation, particularly with water carriers. By these means railroads could keep on the rails traffic which might otherwise have moved partly by water. This practice inconveniences the public and also interferes with the normal development of water transportation. A provision in the Panama Canal Act of 1912 empowered the Interstate Commerce Commission to require the establishment of a physical connection between rail and water carriers.⁸² The rail carrier, or the water carrier, or both, may be required to construct tracks between the docks of water carriers and the lines of rail carriers.⁸³

THROUGH ROUTES AND JOINT RATES

It is not uncommon for carriers of one type to refuse to establish through routes and joint rates with carriers of another type. By a "through route" we mean an arrangement between connecting carriers for the continuous carriage of goods on a single billing from a point on the lines of one carrier to a point on another. By a "joint rate" we mean a single rate from point of origin to destination, rather than a combina-

⁷⁹ *Skinner & Eddy Corp. v. United States*, 249 U.S. 557 (1919).

⁸⁰ *Ibid.*, pp. 567-568.

⁸¹ See p. 551, *supra*, and *Transcontinental Cases of 1922*, 74 I.C.C. 48, 71 (1922).

⁸² Now Paragraph (11) (a) of Section 6 of the Interstate Commerce Act.

⁸³ See *City of St. Paul v. Chicago, Milwaukee, St. Paul & Pacific R. R. Co.*, 160 I.C.C. 227 (1929).

tion of the rates of the separate carriers. Through routes may exist without joint rates, but the two commonly go together. Failure of carriers to establish through routes with carriers of another type deprives the public of the advantage of a coordinated transport service involving two or more modes of transport, and it may also restrict and hamper the development of one agency of transport. Thus the refusal of railroads to establish through routes and joint rates with barge lines might prevent the development of the latter.

The Interstate Commerce Act gives the Interstate Commerce Commission authority to require the establishment of through routes and joint rates involving railroads and water carriers. Dissatisfaction with the progress made in the establishment of joint rail-water rates with barge lines under the provisions of the Interstate Commerce Act led Congress, in 1928, to enact the Denison Act which practically forced the railroads to establish through routes and joint rates with barge lines on the Mississippi River and its tributaries. In numerous proceedings under the Denison Act an extensive system of joint rail-barge routes and rates was established.⁸⁴ The Denison Act was repealed by the Transportation Act of 1940, but it had served its purpose by bringing about the establishment of through rail-barge routes and rates.

The Interstate Commerce Commission has no authority to require the establishment of through routes and joint rates involving railroads and motor carriers, or motor and water carriers. Through routes and joint rates, however, may be established voluntarily by such carriers. Some truck-water through routes and joint rates are in effect. Railroads have not ordinarily been willing to establish through routes and joint rates with motor carriers. At one time the railroads which are members of the Association of American Railroads had an agreement not to establish through routes and joint rates with motor carriers. This agreement was attacked by the Department of Justice as a violation of the Sherman Anti-Trust Act.⁸⁵ As a result of this action, a "consent decree" was entered by the court, which was agreed to by the Association and the railroads involved, breaking up the agreement and enjoining similar action in the future.⁸⁶

⁸⁴ E.g., *Through Routes & Joint Rates*, 156 I.C.C. 724 (1929); *Application of American Barge Line Co.*, 167 I.C.C. 41 (1930), 182 I.C.C. 521 (1932); *Inland Waterways Corp. v. Alabama Great Southern Ry. Co.*, 151 I.C.C. 126 (1929); *Application of Mississippi Valley Barge Line*, 167 I.C.C. 41 (1930), 178 I.C.C. 224 (1931).

⁸⁵ 64 *Traffic World* 1034 (1939).

⁸⁶ 68 *Traffic World* 229 (1941).

The establishment of coordinated service involving two or more modes of transport, as well as a more natural development of motor transportation, might occur if the Commission were empowered to require the establishment of through routes and joint rates involving all modes of transportation subject to its jurisdiction, when such through routes and joint rates are shown to be required in the public interest.

The Civil Aeronautics Act authorizes, but does not require, air carriers to establish through routes and joint rates with other common carriers. If such routes and rates are established with carriers subject to the jurisdiction of the Interstate Commerce Commission, controversies over these rates may be referred to a joint board consisting of an equal number of members of the Interstate Commerce Commission and of the Civil Aeronautics Board. This joint board is empowered to take such action as the Civil Aeronautics Board might exercise over joint rates between air carriers.

DISCRIMINATION AGAINST CONNECTING CARRIERS

Carriers sometimes discriminate against connecting carriers of another type in the interchange of traffic or in the establishment of rates. Railroads have been inclined to resort to this practice in order to keep traffic on the rails and prevent its conveyance by water or motor carriers.

Paragraph 4 of Section 3 of the Interstate Commerce Act contains provisions which are aimed at discrimination of this sort. The paragraph provides that railroads shall "afford all reasonable, proper, and equal facilities for the interchange of traffic between their respective lines and connecting lines, and for the receiving, forwarding, and delivery of passengers and property to and from connecting lines; and shall not discriminate in their rates, fares and charges between connecting lines . . ." The paragraph defines "connecting lines" to include any common carrier by water subject to part III. An obligation similar to that placed on railroads by Section 3(4) is placed upon water carriers by Section 305(d) of the Act.

In an early case the Commission found unlawful a practice of the rail lines operating north of the Ohio River whereby local rates to and from the Ohio River were charged on traffic delivered to or received from connecting water lines, while lower "proportional" rates were charged for the same service if the traffic was delivered to or was received from connecting rail lines. In this case the Commission said: "If carriers are permitted to apply higher rates for the same service on traf-

fic routed over connecting water lines than on traffic via their all-rail connections, they will be in a position to destroy all water competition and to deprive shippers of the advantage of their location upon navigable waters."⁸⁷

In a number of cases the Commission held that when connecting carriers were not subject to the jurisdiction of the Commission, the provisions of Section 3(4), formerly Section 3(3), did not apply.⁸⁸ In a case involving reshipping or proportional rates on grain from Chicago to eastern destinations, the Commission upheld the rail carriers in their refusal to permit grain brought into Chicago by barge over the Illinois Waterways to move out on the low proportional rates which applied on grain that had been brought in by rail.⁸⁹ On traffic brought in by barge the railroads proposed to charge the higher local rates when the grain moved east. The Commission's order was upheld by the Supreme Court.⁹⁰ Section 3(4) of the Act was not involved, since the barge lines were not subject to the Commission's jurisdiction at the time that the evidence was taken. Before the Commission reached its decision, however, the Transportation Act of 1940 was enacted, and the barge lines were brought under the Commission's jurisdiction. Justice Black, dissenting from the decision of the Supreme Court which upheld the Commission's order, took the position that the Commission should have considered the case in the light of Section 3(4) which he considered to have been violated.⁹¹ Later the Commission prescribed proportional rates which were to apply east of Chicago on grain brought into Chicago by barge, in lieu of the higher local rates, but the ex-barge proportionals were made higher than the ex-rail proportionals.⁹² The Commission did not consider that these rates would be in violation of Section 3(4). The order of the Commission was set aside by a Federal court, but this decision has been appealed to the Supreme Court of the United States.

A common form of discrimination by railroads against connecting water lines which has been found unlawful under paragraph 4 of Section 3 is the practice of denying in-transit privileges on certain com-

⁸⁷ *Chattanooga Packet Co. v. Illinois Central R. R. Co.*, 33 I.C.C. 384, 392 (1915).

⁸⁸ See *Ex-river Grain from St. Louis to the South*, 203 I.C.C. 385 (1934).

⁸⁹ *Grain Proportionals, Ex-Barge to Official Territory*, 246 I.C.C. 353 (1941), 248 I.C.C. 307 (1941).

⁹⁰ *Interstate Commerce Commission v. Inland Waterways Corp.*, 319 U.S. 671 (1943).

⁹¹ *Ibid.*, p. 697.

⁹² 262 I.C.C. 7 (1945).

modities received from water lines, while granting such privileges on similar traffic received from rail lines.⁹³

UNIFIED REGULATION

Preceding pages have shown that conflicts of interest between different modes of transport appear in many different situations and that regulatory bodies are constantly encountering such conflicts in the administration of regulatory statutes. A conflict of interest often appears in cases involving the granting of certificates of public convenience and necessity, in determining whether consolidations and combinations of like or unlike transportation agencies shall be authorized, in regulating rates of competing transportation agencies, in considering the desirability of establishing facilities for the interchange of freight, and in the establishment of through routes and joint rates. It is important that such conflicts of interest be resolved in the public interest, and without favoritism toward or discrimination against any form of transportation. This suggests that one regulatory agency should have jurisdiction over all forms of transportation rather than that each be regulated by a separate agency.

Before the enactment of the Motor Carrier Act of 1935 and the Transportation Act of 1940 there was some controversy over the question of whether motor carriers and water carriers, if they were to be regulated, should be regulated by separate regulatory bodies or whether control should be vested in the Interstate Commerce Commission.⁹⁴ In enacting the Motor Carrier Act of 1935 and the Transportation Act of 1940, Congress decided that the regulation of motor carriers and water carriers should be placed in the hands of the Interstate Commerce Commission which already had jurisdiction over railroads and pipe lines. As pointed out elsewhere, however, Congress set up a separate agency for the regulation of air carriers. We have already suggested that this arrangement need not be disturbed at the present time but that, if conflicts of interest between air carriers and other modes of transportation arise, the question of bringing air carriers under the control of the

⁹³ *Storage in Transit on Imported Rubber*, 256 I.C.C. 183 (1943); *Inland Waterways Corp. v. Southern Ry. Co.*, 263 I.C.C. 227 (1945) See also *Transit on Scrap Rubber*, 264 I.C.C. 519 (1946).

⁹⁴ See the discussions of this question by the Federal Coordinator of Transportation in *Regulation of Transportation Agencies*, 73d Cong., 2d sess., Senate Doc. No. 152 (1934), pp. 38-41; *Report of the Federal Coordinator of Transportation*, 1934, 74th Cong., 1st sess., House Doc. No. 89 (1935), pp. 14-15; *Fourth Report of the Federal Coordinator on Transportation Legislation*, 74th Cong., 2d sess., House Doc. No. 394 (1936), p. 5.

Interstate Commerce Commission may need to be reopened and reconsidered in the light of conditions then prevailing.⁹⁵

RAILROAD READJUSTMENT

When a truly coordinated transportation system has been brought about, it will be found that the position of the railroads in that system will be different from that which they have traditionally occupied. Railroads will undoubtedly continue to have an important place, if not the most important place, in the transportation system of the country, but they will have been forced to divide the field with the newer agencies. No technological changes as extensive as those which have occurred in the transportation industry can take place without adversely affecting investments in the older facilities. Railroads must adjust themselves to the new conditions.

We are here entering a field in which management, rather than government, should play the principal role. Railroad readjustment to the new conditions requires the organization of the railroad industry along the most efficient lines, the elimination of wastes and duplication, modernization of operating methods and physical properties, improvements in service, modernization of the rate structure, utilization of other forms of transportation where they can be used by the railroads to advantage, abandonment of unprofitable mileage, and financial reorganization when changed conditions do not permit a railroad to support its former capitalization.

It was partly to permit economies in operation and a more efficient organization of the railroad industry that railroad consolidation was encouraged in the Transportation Act of 1920. The Emergency Railroad Transportation Act of 1933, which created the office of Federal Coordinator of Transportation, was motivated by a further desire to help the railroads reorganize their physical properties and methods of operation and bring about substantial savings in operating expenses. The Federal Coordinator, during the time that this office was in existence, was able to accomplish very little in this direction, although his studies revealed many opportunities for such action. Efforts have been made from time to time to create another organization similar to that

⁹⁵ P. 832, *supra*.

⁹⁶ *Report of the Federal Coordinator of Transportation, 1934*, pp. 24-31, and *Fourth Report* (1936), pp. 41-45. See also the report of the "Committee of Three," *Immediate Relief for Railroads*, 75th Cong., 3d sess., House Doc. No. 583 (1938), p. 20.

of the Federal Coordinator of Transportation to carry on the same type of work.⁹⁶

There is some question of how effective government can be in bringing about the reorganization of the railroad industry if management is unwilling to make such changes, unless government ownership is adopted. The field is one in which management should take the initiative in its own self-interest. The future place of the railroads in the transportation system of the country will depend in no small degree upon the ability of the railroad industry to adjust itself to the changed conditions which the development of other modes of transport has brought about.

SELECTED REFERENCES

For material dealing with the problem of transport coordination, see G. S. Peterson, "Transport Co-ordination: Meaning and Purpose," 38 *Journal of Political Economy* 660 (1930); James C. Nelson, "Coordination of Transportation by Regulation," 14 *Journal of Land & Public Utility Economics* 167 (1938); H. G. Moulton, *The American Transportation Problem* (Washington, Brookings Institution, 1933), ch. XXXVIII; Emory R. Johnson, *Government Regulation of Transportation* (New York, Appleton, 1938), chs. XXVI and XXVII; Ralph L. Dewey, "Transport Coordination," in National Resources Planning Board, *Transportation and National Policy* (Washington, Government Printing Office, 1942), pp. 140-160; Wm. J. Cunningham, "The Transportation Problem," 25 *Harvard Business Review* 58 (1946).

The subject of promotional policy toward transportation agencies has not had the thorough analysis that it deserves. There is some discussion of the problem in Wilfred Owen, "Transportation and Public Promotional Policy," in National Resources Planning Board, *op. cit.*, pp. 250-277. Highway promotional policy is treated extensively in Charles L. Dearing, *American Highway Policy* (Washington, The Brookings Institution, 1941). Promotional policy with respect to water transportation is critically discussed in Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944), pp. 393-413. Policy with respect to the addition of new transportation facilities is discussed at length in Federal Coordinator of Transportation, *Public Aids to Transportation*, vol. I (Washington, Government Printing Office, 1940), pp. 75-96.

The literature on subsidy to transportation agencies is voluminous. The most authoritative treatment is in two reports on the subject by government agencies, namely, Federal Coordinator of Transportation, *Public Aids to Transportation*, 4 vols. (Washington, Government Printing Office, 1938-1940); and Board of Investigation and Research, *Public Aids to Domestic Transportation*, 79th Cong., 1st sess., House Doc. No. 159 (1944). Railroad criticism of the Coordinator's study was published by the Association of American Railroads as *What Is Public Aid to Transportation?* (Washington, 1940), and of the Board of Investigation and Research study as *A Review of "Public Aids to Domestic Transportation"*

(mimeographed, 1946). A condensed treatment of the subject is in Truman C. Bigham, *Transportation: Principles and Policies* (New York, McGraw-Hill, 1946), ch. 22.

On the adjustment of rates between competing transportation agencies see Hunter Morrison, "Economic Justification for Regulating Competitive Truck and Rail Rates," 14 *Journal of Land & Public Utility Economics* 66 (1938); D. P. Locklin, "Rates to Facilitate Transport Coordination," in National Resources Planning Board, *op. cit.*, pp. 114-122; Thor Hultgren, "The Nature of an Economical Division of Traffic," also in National Resources Planning Board, *op. cit.*, pp. 129-139; S. Chesterfield Oppenheim, *The National Transportation Policy and Inter-carrier Competitive Rates* (Harrisburg, The Evangelical Press, 1945); and Truman C. Bigham, *op. cit.*, ch. 17.

Controversy over the question of railroad control of, or participation in, other forms of transportation has brought forth a large amount of literature on the subject, most of which is in the nature of supporting arguments for one or another of the parties directly interested. A discussion of both sides of the question with reference to air transportation is Wm. L. Grossman, *Surface-Carrier Participation in Air Transportation* (New York, New York Univ., School of Commerce, Accounts, and Finance, 1944). See also T. W. Van Metre, *American Transportation Policy* (Washington, National Federation of American Shipping, 1944). The railroad point of view is expressed in Association of American Railroads, *National Transportation Inquiry*, a statement before the Subcommittee on Transportation of the Committee on Interstate and Foreign Commerce, House of Representatives (1946), pp. 24-31.

INDEX

A

Abandonments: by airlines, 817; by motor carriers, 713; by railroads, 247-248, 620-624, 692-693; by water carriers, 776

Abilene case, 286-287

Accounting regulation, of railroads, 226-227, ch. XXIII

Accounts, of railroads, ch. XXIII

Acquisition of control, of railroads, 244-245

Act to Regulate Commerce, 1887, 216-220

Actual cost, as basis of valuation, 374-377

Actual-value rates, 450-451

Ad coelum doctrine, 787-788

Adams, Charles Francis, Jr., 117

Adjustment board, *see* National Railroad Adjustment Board

Administrator, under Civil Aeronautics Act, 814-815

Administrator of Civil Aeronautics, 816

Advantage of location: and rate reasonableness, 482; and undue preference and prejudice, 511-515

Agencies of control, ch. XIII

Aggregate-of-intermediates rule, 475-476

Agreements to divide territory, 308

Air Commerce Act, 1926, 786, 788, 792, 813

Air express, 803-805

Air freight, 803-806

Air Mail Act, 1925, 810

Air Mail Act, 1934, 813-814

Air Mail compensation, determination of, 822-825

Air mail payments, and subsidy, 808-811

Air Safety Board, 814-815, 816

Air transportation, ch. XXXII; regulation of, ch. XXXIII

Airlines: control by surface carriers, 855-857; major, 795-798; profitability of, 807; regulation of, ch. XXXIII

Airports, 790-795

Airspace rights, 787-788

Airways, 788-790

Alabama Midland case, 229, 516, 546, 547

All-commodity rates, 693

All-freight rates, 693

Allegheny Portage Railroad, 75-76

Analogous articles, 439

Ann Arbor R. R. Co. v. United States, 254-255, 460

Anti-Trust Act, and consolidation of railroads, 317-318, and motor-carrier consolidation, 726-727; and railroads, 330-332

Arbitration, of labor disputes, 256-257

Ashland Fire Brick case, 523-524

Average revenue per ton-mile: of motor carriers, 689; of railroads, 12-13, 689

B

Balance sheet, of railroads, 563-565

Bankruptcy Act: chapter XV of, 267; section 77 of, 257-260

Barker case, 852-853

Basing line, 195, 196

Basing point, 195

"Big Inch," 651

Black, Justice: criticism of fair-value rule, 389, 391, 392; on Natural Gas Pipeline case, 392-393; on revised Rule of Rate-Making, 361; on value of service and rate level, 362

Blanket rates, 197

Board of Engineers for Rivers and Harbors, 744

Board of Investigation and Research: created, 272; on airmail subsidy, 809; on airport income and expense, 794-795; on classification exceptions, 172-173; on land-grant rate reductions, 114; on motor-vehicle operating restrictions, 721-722; on motor-vehicle share of highway costs, 842; on motor-vehicle weight limitations, 698; on subsidy to airlines, 808, 842; on subsidy to highway transportation, 841; on subsidy to water transportation, 840; on tolls on waterways, 758-759; on value of railroad land grants, 112; on water transportation costs, 750-751

Bogart, E. L., 72

Bonbright, on cost of reproduction as a rate base, 381

- Brainerd, Commissioner, on Section 3 cases, 521
 Brandeis, Justice: criticism of fair-value rule, 389, 391-392, on Ohio Valley Water case, 295; on weight to be accorded cost of reproduction, 388
 Brown, H. G., 424
 Bureau of Air Commerce, 815
 Bureau of Public Roads, 669
- C
- Canals, 73-79
 Capitalization, and rates, 575-578
 Car service, 608-610, 611
 Car supply, 608-610
 Carload and less-carload rates, 55
 "Charterers," 748
Chicago, Milwaukee & St. Paul Ry Co. v. Minnesota, 346
 Chief of Engineers, U.S. Army, 744
 Childe, C. E., 842
 Civil Aeronautics Act: administration of, 822-829; provisions of, 814-819
 Civil Aeronautics Administration, 790
 Civil Aeronautics Authority, 814-815
 Civil Aeronautics Board, 815
 Class Rate Investigation of 1939, 171, 172, 185
 Class rate levels, 185
 Classification exceptions, 169, 172-173
 Classification of freight: by air carriers, 806; by motor carriers, 686-687; by railroads, 164-173
 Classification territories, 165-166
 Clayton Act, 1914, 318-319
 Coastwise transportation, 735-737
 Cole Act, 660
 Colorado Common Points, 60-61
 Column rates, 173
 Combinations, *see* Consolidations
 Commerce Clause, 276
 Commerce Court, 231-232
 Commercial necessities of shippers, and rate reasonableness, 479-482
 Commission Divisions Act, 1917, 233
 Commission regulation: dangers and weaknesses, 299-303; why necessary, 283-284
 "Committee of Six," 268
 "Committee of Three," 268
 "Commodities clause," 225-226, 496-497, and pipe lines, 659
 Commodity rates, 173-174
 Common carriers, distinguished from contract carriers, 716-717, 780
 Comparative advantage, principle of, 6-8
 Competing commodities: and discrimination, 526-527; and rate reasonableness, 457
 Competition: and rate reasonableness, 476-479; as justification for place discrimination, 515-524, cross country, 192-193, in service, 323-325; market, 193-194, of directions, 194-195; of routes, 191-192
 Competition between railroads: attitude of I.C.C., 325-330; effects of in Canada, 322-323; not a regulator of rates, 133, 134; policy toward, 237-238, 320-323, 333-334; regulatory checks on, 321-322, restrictions on, 307-310; ruinous nature of, 142-143, 305-306
 Competition versus monopoly: in air transport, 826-827; in motor transport, 723-724; in railroad transport, ch. XIV; in water transport, 765-767
 Competitive bidding, 592
 Compulsory construction, of railroads, 248, 624-625
 Compulsory Testimony Act, 220-221
 Conditions existing in an industry, and rate reasonableness, 460-462
 Conestoga wagons, 84-85
 Conference agreements, 760, 765-767
 "Conferences," *see* Conference agreements
 Consolidated Freight Classification, 171
 Consolidation: and weak-and-strong-road problem, 423-429; appraisal of early policy, 319-320; I.C.C. plan of, 132, 245-246, 265, 270; of motor carriers, 725-727; of railroads, 132, 265-266, 315-318
 Constant costs: in motor-carrier industry, 685; in railroad industry, 134-137, 160-162; in water-carrier industry, 770-771
 Constitutional limitations, on rate regulation, 344-347
 Construction, compulsory, 624-625
 Construction companies, 115-118
 Contract carriers: by air, unregulated, 817; by water, regulation of, 777; by motor-vehicle, control of, 704-706; distinguished from common, 716-717, 780; Motor-Carrier Act and, 711; regulated to protect common carriers, 730-732
 Control of indebtedness, 592, 598
 Control of profits, 341-344
 Cooper, Peter, 88-89
 Coordination, 704, ch. XXXIV
 Cost: of air transport, 800-801; of motor-vehicle transport, 684-685; of water transportation, 749-751

Cost accounting, 157-159; 572-574
 Cost of reproduction: an element of value, 384-386, arguments for and against, 377-383, defined, 375, not controlling in valuations, 386-387; weight to be accorded in valuations, 388-389, 393
 Cost of service, and interagency competition, 866-868
 Courts, functions of in regulation, 296-297
Covington & Lexington Turnpike Co. v. Sandford, 362
Credit Mobilier, 117
 Credit standard of rate reasonableness, 351-353
 Cross-country competition, 192-193
 Cullom Committee, *see* Cullom Report
 Cullom Report, 214-215, 312, 575, 754-755
 Cumberland Road, 82
 Cummins, Senator, 244

D

Daggert, Stuart, 423-424
 Daniels, W. M., 323
Dayton-Goose Creek Ry. Co. v. United States, 418-420
 Debt reduction, 595-598
 Declaration of Policy, *see* National Transportation Policy
 Deferred rebates, 767-768
 Delegation of legislative authority, 284-285
 Delivery, pick-up and, 629-630
 Demand, for transportation service, 147-154
 Demurrage, 610
 Denison Act, 1928, 870
 Depreciation: accounting for, 249, 568-572; as an expense, 340-341; in valuation cases, 395-399
 Disadvantage of location, 511
 Discrimination: against connecting carriers, 871-873; and monopoly profits, 155-156; between commodities, 139-141, 525-532; between persons, 141-142, ch. XX; between places, 141, 500-525, ch. XXII; effect on other traffic, 154-155; in passenger fares, 154; motive for, 138-139; requires control of competition, 143-145
 Distance rates, 177-181; advantages of, 189-190; disadvantages of, 190-191; effect of competition on, 195-196
 District Court Jurisdiction Act, 232
 Division of joint rates, 242-243, 416-418
 Dixon, F. H., 69

Douglas, Justice: on Natural Gas Pipeline case, 392-393; on value of service and rate level, 362
 Dual operation, 725, 777-778

E

Earnings: of railroads, 364-365; of pipe lines, 656
 Eastman, Commissioner: appointed Coordinator, 261; as member of "Committee of Three," 268; on commercial necessities of shippers and rate reasonableness, 481; on concept of depreciation, 396; on functions of commissions, 302-303, on geographical representation on commissions, 301; on government ownership of railroads, 641, 643, 644; on political interference with commissions, 299, on pooling and weak roads, 431; on railroad reorganization, 600; on Section 3 cases, 506, 508, on Section 4 and market competition, 544; on waterway policy, 753-754; on waterway tolls, 758
 Eau Claire lumber case, 60
 Economic significance of improved transportation, ch. I
 Edwards, Ford K., 161
 "Effect of rates on the movement of traffic," 355-356, 448, 865
 Elkins Act, 1903, 221-222; and pipe lines, 659-660
 Embargoes, 608
 Emergency boards, 257
 Emergency powers of I.C.C., 630
 Emergency Transportation Act, 1933, 260-266
 Eminent domain: and airports, 793; and railroads, 98-99; and pipe lines, 660-661
 Empty-car movement, and rate reasonableness, 472
 Equidistant clause, 552-553
 Erie Canal, 4, 73, 74, 78
 Esch, Commissioner, 300
 Esch Car-Service Act, 233
 Esch-Cummins Act, *see* Transportation Act of 1920
 Exceptions to the classification, 169, 172-173
 Executive branch of the government, functions in regulation, 297-299
 Exemptions: from Part II of Interstate Commerce Act, 707-709, from Part III of the Interstate Commerce Act, 774-775
 Expediting Act, 1903, 221

F

Fair return, 405-411
 Fair value, ch. XVI
 Fair-value rule and dividends, 348-349;
 and motor carriers, 728, and pipe lines,
 659; in the future, 410-411, not a guar-
 anty, 350-351; statement of, 346-347
 False billing, 488
 False claims, 489
 Federal Aid Highway Act, 1941, 668
 Federal Aid highways, 668
 Federal Aid Road Act, 1916, 667-668
 Federal Airport Act, 1946, 792-793
 Federal Aviation Commission, 829-830
 Federal barge line, 742
 Federal Coordinator of Transportation: and
 railroad adjustments, 874; on air-mail
 subsidy, 809, on motor-carrier regula-
 tion, 707; on motor-vehicle share of high-
 way costs, 841; on private carriers by
 water, 782-783; on regulation of air
 carriers, 829, on regulation of water
 carriers, 772; on subsidy to highway
 transportation, 841; powers and duties
 of, 261-264
 Federal Highway Act, 1921, 668-669
 Federal Power Commission, 664
*Federal Power Commission v. Hope Nat-
 ural Gas Co.*, 352-353, 372, 393
*Federal Power Commission v. Natural Gas
 Pipeline Co.*, 383-384, 392-393
 Federal versus State authority, 276-282
 Federal Works Agency, 669
 Feeder airlines, 828
 Field, Justice: on businesses affected with
 a public interest, 210-211; on constitu-
 tionality of regulation, 212
 "Fighting ships," 768
 Financial aid to railroads, under Act of
 1920, 249-251
 Financial regulation: of air carriers lacking,
 820; of motor carriers, 710, 727; of
 railroads, ch. XXIV; of water carriers
 lacking, 776
 Fixed costs, *see* Constant costs
 Flat-boats, 68-70
 Franchise value, 402
 Frankfurter, Justice, criticism of fair-value
 rule, 389
 Free passes, 487
 "Free railway laws," 100-101
 Freight classification: by air carriers, 806;
 by motor carriers, 686-687, by rail-
 roads, 164-168
 Freight rate structures, ch. VIII

Freight rates: and agricultural production,
 63-66; and location of industries, ch.
 III; and prices, ch. II
 Freight tariffs, 174-175
 Freight traffic, by transportation agencies,
 19
 Fulton, Robert, 71, 83

G

Gas pipe lines, 663-664
 Gasoline taxes, 670
 Geographical division of labor, 5-8
 Geography of prices, 33-39
 Geraci case, 724-725
 Going-value, 402-405
 Good-will, 401-402
 Government operation of railroads, World
 War I, 645-646
 Government-owned railroads, 95-98
 Government ownership and operation of
 railroads, 429-430, ch. XXVI
 "Grandfather clause": for air carriers, 817;
 for motor carriers, 709, 717-722; for
 water carriers, 776, 780-781
 Granger cases, 209-213, 279-280, 345
 Granger laws, 205-209
 Granger movement, 203-205
 Grant, President, and waterway appropria-
 tions, 743
 Group rates: and advantage of location,
 513-515; systems of, 196-199

H

Hadley, A. T.: on controlling railroad
 profits, 343-344; on overcapitalization
 and rates, 576; on railroad competition,
 306
 Hadley Commission, *see* Railroad Securities
 Commission
 Hale, Lord, 210
 Hall, Commissioner, on Section 3 cases,
 507
 Hand, Judge, on competition and reason-
 able rates, 479
 Harbeson, R. W., 158
 Harriman, E. H., 316-317
 Hepburn Act, 1906, 222-228
 Highway debt, 672
 Highway financing, 672-674
 Highway policy, 836-837
 Highway revenues, 672
 Highway transportation, ch. XXVIII; regu-
 lation of, ch. XXIX
 Highway user taxes, 670-672
 History of railroads, ch. V
 Hoch-Smith Resolution, 253-255, 454

Holding companies, 265
 Holmes, Justice: criticism of fair-value rule, 389; on judicial review, 294
 "Honest, efficient, and economical management," 358-360
 Hope case, 352, 372, 393
 Humphrey case, 298

I

Income statement, of railroads, 565-566
 Increasing returns, law of, 137-138
 "Industrial carriers," 748
 Industrial railroads, 490-491
 Inland Waterways Commission, 742
 Inland Waterways Corporation, 742, 851
 Inland Waterways Corporation Act, 851
 Inland waterways system, 737-740
 Intangible values, 400-405
 Interagency competition: and rate regulation, 862-869; characteristics of, 858-859; control of, 859-869
 Intercarrier relations, ch. XXXIV
 Interchange facilities, 614-615, 869
 Interchange of freight, 615-616
 Intercoastal Shipping Act, 1933, 769-770
 Intercoastal transportation, 735-737
 Interlocking directorates, 249, 319
 Interstate Commerce Act, evolution of, chs. X, XI, XII, XXIX, XXXI
 Interstate Commerce Commission: created, 218; enlarged, 223, 233, 249; judicial review of orders of, 288-296; primary jurisdiction of, 286-288; proposed jurisdiction over air carriers, 829-832; relation to Congress, 283-284
Interstate Commerce Commission v. Illinois Central R. R. Co., 288
Interstate Commerce Commission v. Oregon-Washington R. R. & Navigation Co., 624-625
Interstate Commerce Commission v. Union Pacific R. R. Co., 293
 Intracoastal waterway, 739
 In-transit privileges, 53-54, 626-629
 Intrastate rates and Federal control, 247
 Investment in transportation facilities, 14-15

J

Jackson, President, 82
 Joint Board, under Civil Aeronautics Act, 818
 Joint boards, under Motor Carrier Act, 712
 Joint-Traffic Association case, 314
 Joint use of terminals, 248, 617-620
 Jones, Eliot, 376
 Judicial review, 288-296, 345-346

K

Kansas City Southern case, 854
 Kelly Act, 1925, 785
 Key-point rates, 188-189
 "Key-point" restrictions on railroad controlled motor carriers, 854-855
 "Keystone" restriction, 720
 Knapp, Commissioner: on long-and-short-haul discrimination, 230; on personal discrimination, 485
Knoxville v. Knoxville Water Co., 395

L

Labor disputes, 248-249, 255-257, 813
 Lancaster Turnpike, 83
 Land, in valuation cases, 393-395
 Land grant rates, 113-114, 271
 Land grants, 110-114
 Land values, affected by transportation, 2-4
 Lardner, Dionysius, 138
 Large-scale production, and transportation, 8-9
Lindheimer v. Illinois Bell Telephone Co., 352, 397
 "Little Big Inch," 651-652
 Loading and unloading, 611-612
 Local discrimination, 141, 500-525
 Long-and-Short-Haul Clause: history of, 218, 229-230, 249, 544-549, 551-554; made applicable to water carriers, 773; none for air carriers, 819; not applicable to motor carriers, 713
 Long-and-short-haul discrimination, ch. XXII

M

Mahaffie, Commissioner: member of "Committee of Three," 268; on private carriers by water, 783-784
 Mann-Elkins Act, 1910, 229-232
 Maritime Commission, *see* United States Maritime Commission.
 Market areas, law of, 55-63
 Market competition, 193-194
 Market value, and fair value, 370-372
 Maximum Freight Rate case, 224
McCardle v. Indianapolis Water Co., 386
 McManamy, Commissioner, on aggregates-of-intermediates rule, 475
 Mediation Board, 256
 Meyer, Commissioner: on geographical representation on Commission, 301; on policy in new construction cases, 330
Michigan Public Utilities Commission
Duke, 706

Miller, Commissioner, on railroad consolidation, 333
 Milling-in-transit, *see* In-transit privileges
 Minimum rate cases, 326-327
 Minimum rate power, 243
Minnesota Rate Cases, 281-282
 Modes of transport, comparative importance, 18-19
 Monopoly versus competition, *see* Competition versus monopoly
 Monroe, President, 82
 Motor Carrier Act, 1935 (Part II of Interstate Commerce Act): administration of, 714-732; criticisms of, 732-733; provisions of, 707-714
 Motor carriers: control by railroads, 851-855; freight classifications of, 686-687; rates of, 685-690; regulation of, ch. XXIX
 Motor transportation, ch. XXVIII; regulation of, ch. XXIX
 Motor trucks: registration fees, 670-671; registrations, 667
 Motor vehicles: registrations, 666; weight limitations, 696-698
 Moulton, H. G., 755
 Multiple-carload rates, 493
 Municipally owned railroads, 98
Munn v. Illinois, 209
 Murphy, Justice: on Natural Gas Pipeline case, 392-393; on value of service and rate level, 362

N

National Mediation Board, 256
 National Pike, 82
 National Railroad Adjustment Board, 256
 National Rivers and Harbors Congress, 741
 National Transportation Policy, 269, 332, 778, 862, 865, 868
 National Waterways Commission, 742
 Natural Gas Act, 1938, 664
 Natural Gas Pipeline case, 392-393
 Natural gas pipe lines, 663-664
Nebbia v. New York, 211-212
 Net railway operating income, 566-567
 New construction, compulsory, 248, 624-625; restriction of 243-244; policy toward, 328-330
New England Divisions Case, 416-417
 New York Barge Canal, 79, 739-740
 Noncapitalizable assets, 582-583
Northern Pacific Ry. v. North Dakota, 435-438
 Northern Securities case, 318
 Northern Securities Company, 316-317

O

Ohio Valley Water case, 294-295
 Operating ratio, 567-568
 Original cost, *see* Actual cost
 Out-of-pocket costs, and rate reasonableness, 435-438
 Overcapitalization: and rates, 575-578; extent of, 586-587; prevention of, 587; reasons for, 578-579
 Owner's risk rates, 443

P

Pack-horse transportation, 79-80
 Panama Canal, 736-737
 Panama Canal Act, 1912, 764, 849-851
 Part II of Interstate Commerce Act, *see* Motor-Carrier Act, 1935
 Part III of Interstate Commerce Act, 773-779
 Passenger fares, 199-200
 Pennsylvania Public Works, 75-76
 Personal discrimination, 141-142, 217, 221-222, 225-226, ch. XX
 Pettengill bill, 556-557
 Pick-up and delivery, 629-630, 694
Pipe Line Cases, 656-657
 Pipe lines, ch. XXVII
 Plank roads, 83-84
 Pooling: and Act of 1887, 218; and Act of 1920, 243; and weak-and-strong-road problem, 430-432; early, 309-310; extent of, 320-321; legal status, 310-313, 320
 Potter, Mark W., on pooling and weak railroads, 430
 "Potter Plan," 430
 President, functions in regulation, 297-299
 Prices, and freight rates, ch. II
 "Prince Plan," 333
 Private carriers: by motor, 711; by water, 748; defined, 715-716; for-hire service by, 724-725, 782-784
 Promotional policy: air transportation, 837; criticism of, 835-836; highways, 836-837; waterways, 837-838
 "Proprietary carriers," 748
 Prouty, Commissioner: on effects of Trans-Missouri Freight Association decision, 314; on pooling, 312-313
 Prudent investment, *see* Actual cost
 Public policy, and rate reasonableness, 462-464
 Public Roads Administration, 669
 Public welfare, and rate reasonableness, 482-483

Publication of rates, 218
Pullman service, 200

R

Railroad Adjustment Board, 256
Railroad Adjustments Act, 1939, 267
Railroad competition and control, ch. XIV
Railroad consolidation, 244, 245-246, 265-266, 270, 327-328
Railroad control: of air carriers, 855-857; of competing transportation agencies, 848-858; of motor carriers, 851-855; of water carriers, 849-851
Railroad Credit Corporation, 366
Railroad finance and financial regulation, ch. XXIV
Railroad Labor Board, 248-249
Railroad rate structures, ch. VIII
Railroad receiverships, 597
Railroad regulation, development of, chs. IX-XII
Railroad reorganizations, 598, 600-603
Railroad routes, 123-128
Railroad Securities Commission, 232, 580
Railroad service regulation, ch. XXV
Railroad systems, 123-128, 128-130
Railroads: classification of, 130-131; development of, 87-92; earnings of, 364, 365; geographical distribution of, 121, 123; grouping, 128-130; mileage of, 121, 123
Railway Express Agency, 803-804
Railway Labor Act, 1926, 255-257
Rate agreements, 308-309; 313-314
Rate bureaus, 175, 331
Rate suspension power, 230-231
Rate territories, 176-177
Rate wars, 306
Rates: of air carriers, 806-807; of motor carriers, 685-690; of railroads, ch. VIII; of water carriers, 759-762; theory of, ch. VII
Raw material and finished product rate relationships, 454-457, 530-531
Reagan bill, 215, 216
Reagan v. Farmers' Loan & Trust Co., 346
Reasonableness of rates: between particular points, ch. XIX; on particular commodities, ch. XVIII
Rebates, 487
Recapture Clause, 241-242, 266, 418-422
Receiverships, 597
Reciprocal demurrage, 610
Reconignment, 625-626
Reconstruction Finance Corporation, 258, 262, 368

Reed, Justice, on Hope case, 393
Reed, Senator, pooling bill, 432
Refusal of shipments, 605-608
Regional coordinating committees, 261, 263
Regional discrimination, 532
Regulation: beginning of, ch. IX; by charter, 202-203; of air transportation, ch. XXXIII; of highway transportation, ch. XXIX; of intercarrier relations, ch. XXXIV; of railroads, development of, chs. IX-XII; of water transportation, 268-269, ch. XXXI
Reinvested earnings, in valuation cases, 399-400
Released rates, 445-446
Reorganizations, 598, 600-603
Replacement cost, *see* Cost of reproduction
Restriction of entry, and interagency competition, 859-862
Revenue per ton-mile: of motor carriers and railroads, 689, of railroads, 12-13
Ripley, W. Z., 178, 190, 191-192, 194-195, 619
Rivers, early transportation on, 68-73
Roberts, Justice, on delegation of legislative power, 285
Roosevelt, Franklin D.: and Humphrey case, 298; on pipe lines, 661; on regulation of air transportation, 829-830; reorganizes Civil Aeronautics Authority, 815-816
Roosevelt, Theodore: and waterway development, 742; on regulation of railroad finance, 236-237, 580; on strengthening regulation, 223
Ruinous competition, 305-306
Rule of Rate-Making: amendments of 1933, 266; amendment of 1940, 271; and "umbrella" rate making, 865; for air carriers, 818; for motor carriers, 728; for water carriers, 775-776, 779; in Act of 1920, 240-241

S

Safety, in air transport, 801-802
St. Louis & O'Fallon case, 387-389
Section 1, I. C. Act, 217
Section 2, I. C. Act, 217, 494, 498
Section 3, I. C. Act, 217, 494, 498, ch. XXI
Section 3, par. 4, I. C. Act, 871-873
Section 4, I. C. Act, 218, 534-535, 773, *see also* Long-and-Short-Haul Clause.
Section 5, I. C. Act, 218, 710, 773

Section 6, I. C. Act, 218, 494, 495
 Section 13, I. C. Act, 247, 282
 Section 15a, I. C. Act, 240-241, 266, 271, 353-354, 354-356
 Section 20a, I. C. Act, 246, 580-581, 710
 Section 77, Bankruptcy Act, 257-260, 600-603
 Section 207, I. C. Act, 853-854
 Section 307 (f), I. C. Act, 775-776, 779
 Section 500, Transportation Act of 1920, 555-556
 Service. duty of, 605; regulation of railroad, ch. XXV
 Shartman, I. L., 358, 447
 Sherman Anti-Trust Act, *see* Anti-Trust Act
 Shipping Act, 1916, 765-769
 Shreveport doctrine: and air carriers, 821; established, 281-282; not applicable to motor carriers, 714; not applicable to water carriers, 776-777
 Shreveport Rate Cases, 61, 281-282
 Sidings, 612
 Significance of improved transportation, ch. I
 Size of transportation industry, 14-15
Smyth v. Ames, 232, 345, 346-348, 372-374
 Social welfare, and rate reasonableness, 482-483
 Splawn, Commissioner, 268
 "Spotting," 614
 State regulation: of air transportation, 820-822; of motor carriers, 704; of railroads, 276-282
 State versus Federal authority, 276-282
 Steamboats, 71-73
 Stephenson, George, 88
Stephenson v. Binford, 705
 Stock dividends, 589-592
 Stock-watering, 582, 587-592
 Stone, Justice: criticism of fair-value rule, 391; on discrimination, 509; on weight to be accorded cost of reproduction, 388-389
Stone v. Farmers' Loan & Trust Co., 346
 Subsidy: controversy over removal, 844-847; methods of removing, 843-844; objections to, 843; problem of, 838-839; to air transport, 807-811, 842; to highway transport, 840-842; to railroads, 101-115; to water transport, 756-757, 839-840
 Surplus, property acquired from, 399-400
 Switch connections, 612
 Switching, 613-614

T

Taft, Chief Justice, on reasonableness of rates, 348
 Taft, President: and Mann-Elkins Act, 229; on railroad financial regulation, 232, 237, 580
 Tapering principle, 177-180
 Tate, Commissioner, on interzone rates, 187
 Taussig, F. W., 11
 Taxes, railroad, 339-340
 Terminal facilities, 611
 Terminals, joint use of, 248, 617-620
 Territorial division of labor, 5-8
 Theory of railroad rates, ch. VII
 Through routes and joint rates: between different modes of transport, 869-871; of railroads, 225, 616-617
 Tolls, on waterways proposed, 758-759
 Ton-miles, carried by railroads, 13-14
 Traffic associations, 313
 Traffic density, and rate reasonableness, 472
 Train service, 612
 Tramp vessels, 748
 Transcontinental rates, 196-197
 Transit privileges, 53-55, 626-629
 Trans-Missouri Freight Association case, 314
 Transportation Act of 1920, ch. XI
 Transportation Act of 1940, 267-272, 773
 Transportation Association of America, 857
 Transportation brokers, 709-710
 Trap-car service, 629
 Trucking industry, characteristics of, 678-685
 Trusteeships, *see* Receiverships
 Turnpikes, 80-83

U

Ubiquitous raw materials, 49-50
 "Umbrella" rate making, 864-865
 Underclassification, 487-488
 Undue preference and prejudice, *see* Section 3, I. C. Act
 Unified regulation, 873-874
 Uniform classification, 171-172
United Railways v. West, 341, 572
 United States Maritime Commission, 769
 United States Railroad Administration, 234
 United States Shipping Board, 765
United States v. Trans-Missouri Freight Association, 314
 Urbanization, transportation and, 9-10
 Use of a commodity, and rate reasonableness, 457-460
 User charges, *see* Subsidy

V

valuation: for capitalization purposes, 583-585; for rate-making purposes, 370-405
valuation Act, 1913, 232-233
value of commodity: and rate reasonableness, 448-454; relation to value of service, 151-152
value of service: and rate level, 362-363; limitations on, 156-157; meaning of, 147-152
variable costs: in motor-carrier industry, 685; in railroad industry, 134-137; in water-carrier industry, 771
volume minima, 688-689

W

Wabash case, 215-216, 280-281
War Shipping Administration, 737
Warren, G. E., 7, 65

Water transportation, ch. XXX; regulation of, 268-269, ch. XXXI
Waterway policy, 743-744, 837-838
Watkins, G. E., 158
Watres Act, 1930, 810
Weak-and-strong-road problem, ch. XVII
Weber, Alfred, p. 46, 49
Weight-density, 440-442
Weight-losing raw materials, 45-46
"What-the-traffic-will-bear," 152-154
Wight v. United States, 497-498
Wilson, President, on independence of I.C.C., 300
Windom Committee, *see* Windom Report
Windom Report, 214, 575, 754
Wisconsin Passenger Fares case, 282
Woodlock, Commissioner: on policy in new construction cases, 330; on relationship between fair return and fair value, 405; on terminable bonds, 599
Wright brothers, 785